

AUGUST 2005 SEMI-ANNUAL MONITORING REPORT  
NAVY EXCHANGE GASOLINE STATION  
NAVAL AIR STATION POINT MUGU  
NAVAL BASE VENTURA COUNTY  
VENTURA COUNTY, CALIFORNIA

*Prepared for*



Southwest Division  
Naval Facilities Engineering Command  
San Diego, California 92132-5181

URS Project No. 29868489.0001AM

October 5, 2005

**URS**

2020 East First Street, Suite 400  
Santa Ana, California 92705  
714-835-6886

**August 2005 Semi-Annual Monitoring Report  
Navy Exchange Gasoline Station**

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J. S. Rowlands, P.G., C.HG., C.E.G.  
Principal Geologist

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S. Tariq Hussain  
Program Manager

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**LIST OF ACRONYMS AND ABBREVIATIONS**

ATEC	ATEC Environmental Consultants
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, total xylenes
Btoc	Below top of casing
CAP	Corrective Action Plan
CatOx	Catalytic Oxidizer
CAWP	Corrective Action Work Plan
cf	Cubic feet
cm/s	Centimeters per second
COC	Chain of custody
DDT	Dichlorodiphenyltrichloroethane
DHS	Department of Health Services
DIPE	Di-isopropyl ether
DO	Dissolved oxygen
DWR	California Department of Water Resources
EPA	Federal Environmental Protection Agency
ETBE	Ethyl tertiary butyl ether
EW	Extraction well
ft <sup>3</sup> /hr	Cubic feet per hour
GTI	Groundwater Technology, Inc.
gpm	Gallons per minute
Hg	Mercury
hrs	Hours
IT	IT Corporation
LARWQCB	Los Angeles Regional Water Quality Control Board
LAS	Lower Aquifer System
lbs	Pounds
lbs/ft <sup>3</sup>	Pounds per cubic foot
LEL	Lower explosive limit
LRP	Liquid ring pump
LUFT	Leaking underground fuel tank
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
mg/m <sup>3</sup>	Milligrams per cubic meter
µg/kg	Micrograms per kilogram
µg/L	Micrograms per liter
MPE	Multi-phase extraction
msl	Mean sea level
MTBE	Methyl tertiary butyl ether
NAS	Naval Air Station
NAVFACENGCOM	Southwest Division Naval Facilities Engineering Command
NBVC	Naval Base Ventura County
NEESA	Naval Energy and Environmental Support Activity
NEX	Navy Exchange
ORP	Oxidation Reduction Potential
OVA	Organic vapor analyzer
PCBs	Polychlorinated biphenyls
RAOs	Remedial action objectives

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RAP	Remedial Action Plan
scfm	standard cubic feet per minute
SVE	Soil vapor extraction
TAME	Tertiary amyl methyl ether
TBA	Tertiary butyl alcohol
TDS	Total dissolved solids
TPH-g	Total petroleum hydrocarbons as gasoline
UAS	Upper Aquifer System
URS	URS Corporation
USGS	United States Geological Survey
UST	Underground storage tank
UWCD	United Water Conservation District
VCAPCD	Ventura County Air Pollution Control District
VCDEH	Ventura County Department of Environmental Health

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## 1.0 INTRODUCTION

URS Corporation (URS) has prepared this August 2005 Semi-Annual Monitoring Report under contract to the Southwest Division Naval Facilities Engineering Command (NAVFACENGCOM) and implemented at the Navy Exchange (NEX) Gasoline Station, Naval Base Ventura County (NBVC), Naval Air Station (NAS), Point Mugu, California (Site). The NAS extends from the Pacific Ocean to Highway 1 occupying approximately 4,500 acres and consisting of approximately 966 buildings. Constructed in 1952, Building 161 (NEX Gasoline Station) is located in the north-central portion of the Point Mugu Facility approximately 0.75 mile north of the Pacific Ocean (Figure 1).

This report, submitted to the Los Angeles Regional Water Quality Control Board (LARWQCB), presents results of the August 2005 semi-annual groundwater monitoring event and ongoing remediation system operations. The groundwater monitoring consisted of "post-purge" groundwater sample collection from 27 select groundwater monitoring/extraction wells. The purpose of the groundwater monitoring was to assess current conditions of gasoline-impacted groundwater associated with a release from the NEX Gasoline Station, Building 161.

The current remediation system operating at the Site consists of a high vacuum multi-phase extraction (MPE) system utilizing a combination of horizontal and vertical wells to extract vapors and groundwater impacted with petroleum hydrocarbons. The system was installed in 1996 and has reached a point of diminishing returns. Since 1996, the Navy and URS have made various enhancements to the system. While this system has been successful at removing petroleum hydrocarbons from soil and groundwater, two localized areas remain impacted with elevated concentrations of total petroleum hydrocarbons as gasoline (TPH-g), the gasoline constituents benzene, toluene, ethylbenzene, total xylenes (BTEX), and the fuel oxygenates methyl tertiary butyl ether (MTBE) and tertiary butyl alcohol (TBA). A detailed discussion of the MPE system performance from 1996 to 2005 and proposed system modifications were presented in the Corrective Action Work Plan (URS, June 2005).

### 1.1 REMEDIAL ACTION OBJECTIVES

The primary objective of the MPE system was to reduce the concentrations of petroleum hydrocarbons present in soil and groundwater at the Site to a level where degradation by natural mechanisms will become the predominant factor for Site cleanup. The Remedial Action Objectives (RAOs) developed for the NEX Site are as follows:

- ◆ To significantly reduce the source of the groundwater plume to concentrations where natural attenuation will remediate the residual dissolved phase plume;
- ◆ To remove significant amounts of benzene and petroleum hydrocarbons (specifically gasoline range hydrocarbons) from the subsurface to a point where extraction is no longer a viable form of remediation;
- ◆ To reduce the concentrations of benzene and petroleum hydrocarbons to a level where they no longer pose a threat to the environment by migrating beyond defined boundaries;

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- ◆ To show that impacted groundwater is not migrating and that the plume has stabilized or is shrinking; and
- ◆ To show that natural attenuation is actively occurring within the plume.

### **1.2 REGULATORY FRAMEWORK**

Regulatory oversight for the Site was formerly under the jurisdiction of the Ventura County Department of Environmental Health (VCDEH), Leaking Underground Fuel Tank (LUFT) program following discovery of the leaking underground storage tank (UST) in 1982. In 1990, regulatory oversight authority was transferred to the LARWQCB. Currently, the LARWQCB oversees groundwater monitoring and remediation progress.

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## 2.0 SITE DESCRIPTION

### 2.1 TOPOGRAPHY AND SURFACE WATER

Topographic map coverage of the Site is provided by the United States Geological Survey (USGS) 7.5 Minute Series Point Mugu, California Quadrangle Map (photorevised 1974). The Site is located at an elevation of approximately 10 feet above mean sea level (msl), with a slightly mounded ground surface in the area of Building 161, the USTs, and fuel dispenser islands. The surrounding topography is relatively flat. The nearest surface water body is the Oxnard Drainage Ditch No. 2 that borders the Site to the southwest. The Oxnard Drainage Ditch No. 2 flows approximately 1 mile southeast into Calleguas Creek. Calleguas Creek flows south into the Mugu Lagoon, which is located approximately 1.25 miles south of the Site.

### 2.2 REGIONAL GEOLOGY AND HYDROGEOLOGY

The information on regional geology and hydrogeology discussed in this section is based on several resource documents including the California Department of Water Resources (DWR) Bulletin No. 63-4, *Sea-Water Intrusion: Aquitards in the Coastal Ground Water Basin of Oxnard Plain, Ventura County* (September 1971), United Water Conservation District (UWCD), *Surface and Groundwater Conditions Report, Water Year 2000 Supplement* (September 2001), and DWR Bulletin 118, *California's Groundwater, Hydrologic Region South Coast, Santa Clara River Valley Groundwater Basin, Oxnard Subbasin* (February 2004).

The Site lies on the Oxnard Plain near the southern edge of the Ventura Basin within the Transverse Ranges geomorphic province. The east-west orientated Transverse Ranges province contains highlands, deep basins, folded and faulted uplifted bedrock, and bedrock outcrops. The Ventura Basin contains a thick sequence (>20,000 feet) of folded and faulted Quaternary to Tertiary sediments. Sediments that underlie the Oxnard Plain are primarily composed of materials that were deposited on a wide delta complex that formed at the terminus of the Santa Clara River (UWCD, 2001). Overview information of the geologic units that contain the principal aquifers of the region is provided below.

In general, the Recent deposits on the Oxnard Plain consist of interbedded gravels, sands, and silts with a laterally persistent fine-grained unit in the middle of the section and coarse-grained unit at the base. This unit is up to 160 feet in thickness. The Recent deposits lie unconformably over Upper Pleistocene deposits, which primarily consist of fine- to coarse-grained sands with lenticular silt and clay interbeds. The coarse-grained deposits are bracketed by fine-grained beds (silts and clays) up to 150 feet thick. This Upper Pleistocene unit is up to 480 feet in total thickness. The Upper Pleistocene deposits unconformably overlie the Lower Pleistocene San Pedro Formation, which primarily consists of fine- to coarse-grained sands with gravel stringers and interbedded silts and clays. The central portion of this formation contains a laterally persistent silt and clay layer up to 170 feet thick. The maximum thickness of the San Pedro Formation beneath the Oxnard Plain is approximately 1,000 feet. The San Pedro Formation overlies the Santa Barbara Formation, which is comprised of fine- to coarse-grained sand with

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gravel and interbeds of silt and clay. The Santa Barbara Formation is capped with silt and clay beds up to 40 feet in thickness. The maximum thickness of the Santa Barbara Formation beneath the Oxnard Plain is greater than 1,500 feet. The fine-grained materials capping the Upper Pleistocene deposits and located in the center of the Recent deposits are not evident in the vicinity of Point Mugu (DWR, 1971).

The Site is located on the western edge of Oxnard Subbasin which is part of the Santa Clara River Valley Groundwater Basin. The subbasin covers an area of approximately 90 square miles and is bounded on the north by the Oak Ridge fault, the south by the Santa Monica Mountains, the east by the Pleasant Valley and Las Posas Valley groundwater basins, and the west by the Pacific Ocean. Recharge occurs primarily from the Santa Clara River in the forebay area, which is located in the northern portion of the subbasin. Recharge also occurs from Calleguas Creek in the vicinity of Mugu Lagoon where the uppermost aquitard is not present (DWR, 2004).

Five groundwater aquifers have been identified in the subbasin. The two shallow aquifers (Oxnard and Mugu) comprise the Upper Aquifer System (UAS). The three deeper aquifers (Hueneme, Fox Canyon, and Grimes Canyon) comprise the Lower Aquifer System (LAS). The uppermost Oxnard Aquifer is generally located at a depth of 100 to 200 feet below ground surface (bgs) in the permeable, coarse-grained materials of Recent deposits. The underlying Mugu Aquifer is generally located at a depth of approximately 250 to 420 feet bgs within the permeable, coarse-grained materials of the Upper Pleistocene deposits (UWCD, 2001). The Oxnard and Mugu Aquifers are separated by an aquitard in most areas of the subbasin except in the vicinity of Mugu Lagoon where they are merged. A shallow semi-perched zone of generally poor quality water overlies the Oxnard Aquifer. In most areas of the subbasin (excluding Mugu Lagoon) a competent aquitard (clay cap) separates the semi-perched zone and the Oxnard Aquifer (DWR, 1971).

The uppermost aquifer of the LAS is the Hueneme Aquifer, which is located in the permeable, coarse-grained materials of the San Pedro Formation. The Fox Canyon and/or the Grimes Canyon Aquifers underlie the Hueneme Aquifer and are located in the permeable, coarse-grained materials of the lower San Pedro Formation and Santa Barbara Formation. The aquifers of the LAS are folded, faulted, tilted, and eroded along an unconformity (UWCD, 2001). As a result, the vertical and horizontal separations between the LAS are not as well defined as the UAS.

Seawater intrusion has occurred in both the UAS and LAS along the coastal areas of Point Mugu and Port Hueneme. In addition, dichlorodiphenyltrichloroethane (DDT) and polychlorinated biphenyls (PCBs) are present in the groundwater aquifers near Point Mugu (DWR, 2004).

### **2.3 SITE GEOLOGY AND HYDROGEOLOGY**

Numerous shallow soil borings have been drilled at the Site to depths ranging from approximately 6 to 21 feet bgs. Soil types observed have been logged as silty sands, sandy clays, and clays. Between 1 and 4 feet of fill material is present at the Site (WESTEC, 1986). Most boring logs indicate clays are present from the near surface to total boring depth. Physical properties testing conducted on several core samples collected at depths of approximately 4 and 10 feet bgs indicate that shallow subsurface soils are

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comprised of approximately 20 to 40 percent fine-grained sand, 40 to 60 percent silt, and 10 to 20 percent clay. The percentage of sand decreases with depth.

More than 30 groundwater monitoring wells have been installed at the Site by several consultants between April 1983 and November 2003. Groundwater elevations beneath the Site have ranged from approximately -3 to 8 feet above msl (1 to 12 feet bgs). The water bearing zone is associated with the shallow, fine-grained soils. Water yield to the wells is low and physical properties testing of cores collected from the saturated zone indicated hydraulic conductivities of  $10^{-6}$  to  $10^{-8}$  centimeters per second (cm/s). During operation of the MPE system by URS, localized groundwater depressions coinciding with the locations of extraction wells have been observed at the Site. Historically, groundwater flow direction beneath the Site is towards the south.

A basewide groundwater study conducted in the late 1990s indicates that the Oxnard Drainage Ditch No. 2 adjacent to the Site is tidally influenced. The shallow semi-perched aquifer in the northern part of the base is located from depths of several feet bgs to about 85 feet bgs and consists of "interbedded, laterally discontinuous sand, silt, and clay." Typically, low permeability sediments were located between ground surface and 30 feet bgs. The shallow semi-perched aquifer is separated from the Oxnard Aquifer on the northern portion of the base by an aquitard approximately 35 feet thick. It is likely that the upper portion of the semi-perched aquifer discharges to surface water. Surface infiltration of precipitation [or irrigation] is the primary source of groundwater recharge to the semi-perched aquifer (Tetra Tech EM, Inc. and LFR Levine Fricke, May 2001).

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### 3.0 SITE HISTORY

The NEX Gasoline Station, Building 161, was constructed in 1952. Four USTs, each with a capacity of 10,000 gallons, were part of the original operations at the Site. These USTs were partially buried on the northwest side of Building 161; a mound of soil extending to a height of approximately 5 feet above grade covered the top of the USTs to facilitate the delivery of gasoline via gravity flow from tanker trucks. In 1982, one of the USTs (Tank 1) was discovered to be leaking. It was removed from service and abandoned in place. According to the initial assessment study (Stearns et al., 1985), an estimated 10,000 gallons of gasoline may have leaked into the subsurface from the UST prior to its abandonment.

In April 1985, Buena Engineers, Inc. conducted a limited Site investigation, drilling four soil borings in proximity to the USTs. Each of the four borings was completed to a depth of approximately 14 feet bgs with soil samples collected every foot. A total of 54 soil samples were analyzed for oil and grease and organic lead. Because the hydrocarbon range of interest is gasoline, the oil and grease analytical method may not have been appropriate. However, laboratory results indicated relatively high hydrocarbon concentrations in soils near the USTs. The results of this investigation were documented in a letter report, *Building 161-Fuel Tanks, Point Mugu, California*, April 16, 1985, Buena Engineers, Inc. (copy of letter report not available).

In February 1986, WESTEC Services, Inc. and R.L. Stollar & Associates conducted a second limited subsurface investigation, drilling two soil borings to supplement the four borings completed by Buena Engineers, Inc. in 1985. Each boring was located adjacent to the USTs and completed to a depth of approximately 12.5 feet bgs. Soil samples were collected at the surface and at 1-foot intervals to the total boring depth. A total of 26 soil samples were collected and analyzed for TPH-g, benzene, toluene, and total xylenes by EPA Method 8020, and organic lead by EPA Method 7421. Samples from both borings showed elevated concentrations of TPH-g, benzene, toluene, and total xylenes indicating that gasoline is present in the soil underlying the USTs. Complete results of this investigation were documented in their report (WESTEC, 1986).

In 1986, the Navy removed the four existing USTs (3 operating and 1 abandoned) and replaced them with new USTs. During the UST removal process, approximately 700 to 850 cubic yards of TPH-g impacted soil were excavated, transported offsite, and disposed at an appropriate landfill facility.

Since the discovery of the gasoline release in 1982, a number of efforts have been made to recover the released material from the subsurface. All of these efforts have had limited success in removing hydrocarbons from the subsurface. In May 1983, IT Corporation (IT) installed a product recovery system consisting of an interceptor trench and sump system to recover released gasoline from the soil and groundwater. During the installation of the gasoline recovery system, it was documented that a lens of separate phase product as gasoline was present on top of the groundwater in a shallow, near surface groundwater zone (WESTEC, 1986). Through 1986, the trench was responsible for the recovery of approximately 3,700 gallons of separate phase product. As part of the study commissioned by the Naval

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Energy and Environmental Support Activity (NEESA), WESTEC Services, Inc., in association with R.L. Stollar & Associates, reviewed and evaluated the construction and operation of the product recovery system. This study concluded that no Site-specific hydrogeologic parameters were evaluated prior to the installation of the separate phase product recovery system installed by IT. The study also concluded that the recovery system had been only partially successful in recovering separate phase product from the subsurface.

In 1988, Groundwater Technology Inc. (GTI) was retained to "locate the dissolved hydrocarbon and free phase gasoline plume around the Site and provide hydrologic data necessary for the enhancement of the remediation system" (GTI, 1988). To accomplish these objectives, GTI conducted a soil gas survey consisting of 30 drive points to further assess the lateral extent of the separate phase and dissolved phase hydrocarbon plume. In addition, GTI installed a total of six 4-inch diameter groundwater monitoring wells and one 6-inch diameter well in order to conduct a pump test.

Subsequent to the GTI study, Riedel Environmental Services, Inc. (Riedel) prepared a Corrective Action Plan (CAP) for the Site (Riedel, 1990). The CAP evaluated a number of alternatives based on mathematical simulations (modeling) and proposed a combination of soil vapor extraction and groundwater pump and treat techniques as the remedial alternative most appropriate for the Site. The CAP proposed the installation of four recovery wells to enhance separate phase product recovery and to lower the aquifer's potentiometric surface across the Site, and the installation of a limited soil vapor extraction (SVE) trench for pilot test purposes. Riedel proposed to evaluate the performance and effectiveness of the remediation system based on the total amount of separate phase product and impacted groundwater recovered by the system per day. Similarly, according to the Riedel report, the viability of the SVE system would depend on the amount of hydrocarbon removed by the system within a certain time period. Riedel considered a removal rate of 1 to 2 pounds (lbs) of petroleum hydrocarbons per day as a favorable rate for the Site, given existing soil conditions. In 1991, ATEC Environmental Consultants (ATEC) implemented all elements of the proposed remedial alternative proposed by Riedel. This remediation system operated from 1991 to 1996. During this period, the system operated intermittently, and with very little success.

In 1996, Dames & Moore (currently URS) evaluated the remediation measures in place at the Site and concluded that significant changes were required in the remediation techniques employed at the Site to increase the removal efficiency. Dames & Moore evaluated a number of options having the potential of improving hydrocarbon removal efficiency at the Site. After evaluating several technologies, MPE using horizontal wells was considered to be the most feasible option for enhancing the remediation process at the Site. This option built upon the more successful experiences of earlier attempts by others to recover petroleum hydrocarbons from subsurface soil and shallow groundwater at the Site (the recovery trench installed by IT and the vapor extraction trench installed by ATEC).

Following the decision to enhance Site remediation, a Remedial Action Plan (RAP) and Evaluation of Groundwater Remediation Measures Report was prepared and submitted to the LARWQCB in August 1996 (Dames & Moore, 1996). The RAP presented new recommendations, including the installation of a MPE system using horizontal extraction wells. Since installation of the MPE system, remediation of the

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Site has been proceeding as described in the RAP (Dames & Moore, 1996) and subsequent Corrective Action Work Plan [CAWP (URS, June 2005)]. The CAWP recommended additional modifications to the treatment system onsite including; shut-down of the MPE system and conversion of select air sparge/extraction wells into biosparge/oxygen diffusion wells during September and October 2005.

Due to the shallow groundwater beneath the Site (typically less than 10 feet bgs), data on the vadose zone impacts are limited to near surface soils. The lateral extent of impact and source areas of release are assumed to correlate with the petroleum hydrocarbon impacted groundwater plume. In addition, remedial progress at the Site is also based on reduction in the lateral extent and concentration of dissolved phase hydrocarbons in groundwater.

Groundwater monitoring has been conducted periodically at the Site since 1988. More than 30 groundwater monitoring wells have been installed on the Site and have effectively defined the lateral limits of the petroleum hydrocarbon impacted groundwater plume. Monitoring well locations are shown on Figure 2. Dames & Moore (now URS Corporation) has conducted groundwater monitoring from the first quarter of 1998 through the present. Groundwater monitoring events were conducted on a quarterly basis from the first quarter of 2000 through the second quarter of 2003, and thereafter on a semi-annual basis from August 2003 through the most recent event (August 2005). A historical summary of the chemical analytical results and groundwater elevations for the Site are included in Appendix A.

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### **4.0 HEALTH AND SAFETY PLAN**

Prior to initiating the field activities, URS created a site-specific Health & Safety Plan to:

- ◆ Identify and describe potentially hazardous substances which may be encountered during field operations;
- ◆ Specify protective equipment and clothing for onsite activities; and
- ◆ Outline measures to be implemented in the event of an emergency.

URS field personnel were required to review the Health & Safety Plan prior to commencing with the field procedures. A copy of the Health & Safety Plan was on-site during field activities and has since been archived in the project files.

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## **5.0 GROUNDWATER MONITORING METHODS**

The August 2005 semi-annual groundwater monitoring consisted of baseline groundwater gauging and “post-purge” sample collection and analysis of 27 monitoring/extraction wells (GTI-3, GTI-6, MW-2, MW-4, MW-6, MW-8, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15, MW-17, MW-18, MW-20, MW-21, MW-23, MW-23X, MW-25, MW-26, MW-27, MW-31, MW-32, MW-33, MW-35, MW-36, and EW-43). Perimeter compliance well MW-34 located to the south of the Site could not be located and accessed for sampling during the February or August 2005 semi-annual monitoring events. Field personnel observed that a sidewalk had been recently constructed in the area of the well. The well may have been damaged during the construction and may be located beneath the sidewalk. The wells selected for sampling are located on the interior and perimeter of the TPH-g and BTEX impacted groundwater plume both on-site and off-site. A description of the monitoring methods is presented below.

### **5.1 GROUNDWATER GAUGING**

The MPE system was shut down July 29, 2005 several days prior to the scheduled sampling event to allow groundwater levels to equilibrate. The groundwater monitoring/extraction wells were gauged relative to the surveyed top of casing on August 2, 2005 using a Solinst™ water level indicator. Water level data was recorded to the nearest 0.01 foot. Groundwater depths and elevations are listed in Table 1.

### **5.2 GROUNDWATER SAMPLING**

Groundwater samples were collected from 27 selected monitoring/extraction wells for laboratory analysis from August 2 through August 4, 2005. “Post-purge” groundwater samples were collected from wells MW-2, MW-12, MW-14, MW-18, MW-23, MW-27, MW-33, MW-36, and EW-43 immediately after purging approximately three casing volumes of well water using a Grundfos RediFlo 2™ submersible pump. The water columns in wells GTI-3, GTI-6, MW-4, MW-6, MW-8, MW-9, MW-10, MW-13, MW-15, MW-17, MW-20, MW-21, MW-23X, MW-25, MW-26, MW-31, MW-32, and MW-35 were drawn down more than 20% following purging, or the wells were purged dry prior to removing three casing volumes. The wells were purged at rates of approximately 0.025 to 1.0 gallon per minute (gpm).

Groundwater purged from the wells was monitored for temperature, pH, electrical conductivity, dissolved oxygen (DO), oxidation reduction potential (ORP), and turbidity using a YSI™ multi-parameter meter equipped with a flow-through cell. The final measured field parameters prior to sample collection are listed in Table 1. Copies of the well purge logs are provided in Appendix B. The “post-purge” groundwater samples from wells MW-2, MW-12, MW-14, MW-18, MW-23, MW-27, MW-33, MW-36, and EW-43 were collected from the discharge tubing of the well pump. The groundwater samples from wells GTI-3, GTI-6, MW-4, MW-6, MW-8, MW-9, MW-10, MW-13, MW-15, MW-17, MW-20, MW-21, MW-23X, MW-25, MW-26, MW-31, MW-32, and MW-35 were collected using a disposable pre-cleaned polyethylene bailer within two hours of purging or 80% recovery of the water column.

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The Grundfos RediFlo 2™ submersible pump was cleaned prior to use and between wells by washing in a solution of Liquinox, rinsing with tap water, final rinsing with deionized water, and air-drying. Pre-cleaned, disposable, polyethylene discharge tubing was attached to the pump following each decontamination and was changed between each well purging event. Blind duplicate samples were collected from wells MW-10, MW-15 and MW-23, and were labeled Dup1-080405, Dup1-080305, and Dup1-080205, respectively. Three equipment blanks labeled EB1-080205, EB1-080305, and EB1-080405 were collected by pumping de-ionized water from a clean 1-gallon container through the pump housing and pre-cleaned polyethylene discharge tubing into sample containers following decontamination procedures.

Sample containers and handling procedures conformed to the established protocols for each specific parameter as described in Environmental Protection Agency (EPA) SW-846. The sample bottles, once filled and preserved as required, were properly labeled. Each label included well identification number, sample number, date and time sampled, and site/client name and location. The sealed and labeled samples were logged on a chain of custody (COC), placed in ice chests packed with ice and transported to American Analytics, Inc. of Chatsworth, a California Department of Health Services (DHS) accredited laboratory. Three trip blanks prepared by the laboratory and labeled TB-080205, TB-080305, and TB080405 remained in the ice chests during the field sampling program and sample transport. The three ice chest temperatures were recorded at 4 to 5 degrees centigrade upon receipt by the laboratory. COC records were maintained throughout the sampling program. Copies of the COCs are provided in Appendix C.

### **5.3 WELL HEAD MAINTENANCE**

As part of the semi-annual monitoring program, each well head is inspected to ensure that wells are properly sealed and secured. The routine well maintenance associated with the semi-annual groundwater sampling consists of: inspection of water-tight well caps and locks on all monitoring/extraction wells and replacement as necessary; replacement of missing or damaged bolts on well box covers; and removal and replacement of damaged well boxes and associated concrete aprons. Numerous wells were missing locks and/or had damaged well boxes. Repairs to the well heads are scheduled to be conducted during the fourth quarter of 2005.

### **5.4 LABORATORY ANALYSES**

The groundwater samples were submitted to American Analytics, Inc. for analysis. All samples were analyzed for:

- ◆ TPH-g by EPA Method 8260B;
- ◆ BTEX by EPA Method 8260B; and
- ◆ Fuel oxygenates MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and TBA by EPA Method 8260B.

Groundwater samples collected from three selected wells (MW-32, MW-36, and EW-43) were also analyzed for the following attenuation parameters, nutrients, and minerals:

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- ◆ Sulfate by EPA Method 300;
- ◆ Sulfide by EPA Method 376.1/9030;
- ◆ Nitrogen, Ammonia by EPA Method 350.2;
- ◆ Nitrogen, Nitrate by EPA Method 300;
- ◆ Nitrogen, Nitrite by EPA Method 300;
- ◆ Nitrogen, Total Kjeldhal by EPA Method 351.3/351.4;
- ◆ Ferrous Iron by SM 3500;
- ◆ Dissolved Methane by RSK 175 Modified;
- ◆ Orthophosphate/phosphorus by EPA Method 365.2;
- ◆ Alkalinity by EPA Method 310.2;
- ◆ Total Dissolved Solids (TDS) by EPA Method 160.1;
- ◆ Cations (Ca, Mg, Na, K, Fe, Mn, Zn, Br); and
- ◆ Anions (Cl<sup>-</sup>, NO<sub>3</sub><sup>-</sup>, NO<sub>2</sub><sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, F<sup>-</sup>).

The wells selected for analysis are located in a central plume area (MW-32), on the plume perimeter (EW-43), and outside the plume (MW-36).

### **5.5 WASTE MANAGEMENT**

Approximately 220 gallons of purge water and decontamination water was generated during this groundwater sampling event. The water was transferred into and treated by the on-site MPE system, and subsequently discharged to the municipal sewer system under a base-wide Industrial Wastewater Discharge Permit (#OC-3) issued by the City of Oxnard.

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## 6.0 GROUNDWATER MONITORING RESULTS

### 6.1 GROUNDWATER ELEVATIONS AND CONTOURS

The measured depths to groundwater on March 16, 2005, ranged from 2.50 (MW-13) to 7.90 (MW-32) feet below top of casing (btoc). Calculated groundwater elevations beneath the Site ranged between 2.36 (MW-32) and 6.06 (MW-27) feet above msl. Groundwater depths and elevations are listed in Table 1 and historic depths and elevations are included in Appendix A. Groundwater elevations at the Site have decreased an average of 1.36 feet since the February 2005 monitoring event.

Groundwater elevation contours for the Site were generated using SURFER<sup>TM</sup>, a graphical, contouring software program and are shown on Figure 3. The contouring data indicates the shallow groundwater table is depressed in central area of the Site. This may be the result of the ongoing groundwater extraction during operation of the MPE system.

### 6.2 LABORATORY ANALYTICAL RESULTS

The groundwater analytical results for TPH-g, BTEX and fuel oxygenates in groundwater samples collected during this event are summarized below. Analytical results for each sample are listed in Table 2. Copies of the laboratory report and COC documents are provided in Appendix C.

Analytes	Groundwater Monitoring Wells with Detectable Concentrations	Range of Detectable Concentrations ( $\mu\text{g/L}$ )
TPH-g	MW-2, MW-4, MW-6, MW-10, MW-13, MW-17, MW-20, MW-21, MW-23, MW-23X, MW-25, MW-26, MW-32, MW-33, MW-35, EW-43	40J (MW-26) to 12,000 (MW-32)
Benzene	MW-4, MW-13, MW-17, MW-21, MW-31, MW-32, MW-33, MW-35, EW-43	0.82 (MW-31) to 3,800 (MW-35)
Toluene	MW-6, MW-13, MW-21, MW-33, MW-35	0.63 (MW-6) to 8.4 (MW-33)
Ethylbenzene	MW-6, MW-13, MW-14, MW-21, MW-25, MW-33, MW-35	0.30J (MW-25) to 370 (MW-33)
m,p-Xylenes	MW-6, MW-13, MW-20, MW-21, MW-33, MW-35	1.1 (MW-20) to 18 (MW-33)
o-Xylenes	MW-6, MW-21, MW-33	0.68 (MW-21) to 26 (MW-33)
MTBE	MW-2, MW-6, MW-20, MW-21, MW-23X, MW-25, MW-31, MW-32, MW-33, MW-35, EW-43	0.43J (MW-2) to 19,000 (MW-32)
DIPE	MW-21, MW-25, MW-32, MW-33, MW-35	0.96J (MW-25) to 4.3 (MW-33)
ETBE	MW-32	0.97J (MW-32)
TAME	MW-32	46 (MW-32)
TBA	MW-4, MW-10, MW-15, MW-21, MW-32, MW-33, MW-35, EW-43	6.4J (MW-4) to 14,000 (MW-32)

$\mu\text{g/L}$  - Micrograms per liter

J – Estimated value greater than the method detection limit and less than the reporting limit.

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The groundwater analytical results for the three wells selected for attenuation parameters, nutrients, and minerals analysis are summarized in Table 3. Stiff and trilinear diagrams based on the cation/anion analysis results are provided as Appendix D. Due to the wide range of cation and anion concentrations detected in the three wells, no predominant water type was identified. Copies of the laboratory report and COC documents for the groundwater samples, duplicates, equipment and trip blanks are provided in Appendix C.

Data validation was performed on laboratory analytical data. The data validation conducted consisted of 90% Level III and 10% Level IV in accordance with United States Environmental Protection Agency (USEPA). A copy of the Data Validation Report has been archived in the project files.

### **6.3 CHEMICAL ANALYSES SUMMARY**

Currently, the highest concentrations of TPH-g are found in three locations. The first location is along the south side of Building 161 in the vicinity of groundwater monitoring well MW-33. The second location is along the northwest side of the gasoline USTs in the vicinity of monitoring wells MW-32 and MW-35. The third location is west of building 123 in the vicinity of monitoring well MW-10. During the August 2005 sampling event, the highest concentration of TPH-g, 12,000 micrograms per liter ( $\mu\text{g}/\text{L}$ ), was detected in the groundwater sample collected from monitoring well MW-32. A Site map showing well locations and the TPH-g isoconcentration contours for the August 2005 monitoring event is provided as Figure 4.

The groundwater sample containing the highest concentration of benzene in August 2005 (3,800  $\mu\text{g}/\text{L}$ ) was collected from monitoring well MW-35, located along the northwest side of the gasoline USTs. The second location with benzene concentrations in excess of 1,000  $\mu\text{g}/\text{L}$  is located on the south side of Building 161. The groundwater sample collected from monitoring well MW-33 contained 2,100  $\mu\text{g}/\text{L}$  of benzene. A Site map showing the benzene isoconcentration contours for the August 2005 monitoring event is provided as Figure 5.

The highest concentration of MTBE (19,000  $\mu\text{g}/\text{L}$ ) and TBA (14,000  $\mu\text{g}/\text{L}$ ) detected during the August 2005 monitoring event was from a sample collected from monitoring well MW-32, which is located northwest of the gasoline USTs. A Site maps showing the MTBE and TBA isoconcentration contours for the August 2005 monitoring event is provided as Figure 6 and Figure 7, respectively.

### **6.4 NATURAL ATTENUATION PARAMETERS SUMMARY**

Data collected by Dames & Moore and presented in the CAP (Dames & Moore, 1996) indicated that "there is a significant population of hydrocarbon oxidizing microbes" present in the shallow water bearing zone beneath the Site. A suite of natural attenuation parameters were previously evaluated at the Site and are discussed in the Second Quarter 2003 Groundwater Monitoring Report (URS, October 2003). For comparative purposes, a summary of the historic attenuation parameter data collected at the Site is provided in Appendix E.

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Groundwater samples collected from three selected wells during the August 2005 monitoring event (MW-32, MW-36, and EW-43) were analyzed to measure the concentration of dissolved manganese (II), dissolved iron (II), nitrate-nitrogen, sulfate, and methane, and various microbial nutrients (Table 3). In addition, DO concentrations were measured at each well scheduled for sampling during the August 2005 monitoring event (Table 1). The data generated and interpreted by these analyses are summarized below.

- ◆ Dissolved manganese (II) concentrations in groundwater ranged from 0.52 to 2.2 milligrams per liter (mg/L). The areas of increased manganese concentrations may indicate anaerobic degradation using manganese as an electron acceptor is occurring, or has occurred, in these areas.
- ◆ Dissolved iron (II) concentrations in groundwater ranged from non-detect to 12 mg/L. The areas of increased dissolved iron concentrations may indicate anaerobic degradation using iron (III) as an electron acceptor is occurring, or has occurred, in these areas. The non-detect concentration was from a well MW-36 located outside the dissolved phase hydrocarbon plume.
- ◆ Nitrate was not detected in groundwater at the Site.
- ◆ Sulfate concentrations in groundwater ranged from 150 to 6,700 mg/L. The areas of decreased sulfate concentrations may indicate anaerobic degradation using sulfate as an electron acceptor is occurring, or has occurred, in these areas. The reduced sulfate concentrations do not correlate with the dissolve phase hydrocarbon plume.
- ◆ Methane concentrations in groundwater ranged from non-detect to 87 mg/L. The areas of increased methane concentrations may indicate anaerobic degradation using carbon dioxide as an electron acceptor is occurring, or has occurred in these areas. The elevated methane concentrations correlate with the dissolved phase hydrocarbon plume. Methane was not detected in the sample collected from well MW-36 located outside the dissolve phase hydrocarbon plume.
- ◆ In general, Site wide DO levels are below 1 mg/L with the exception of a few locations. The low DO levels suggest that aerobic biodegradation has occurred, and currently there is insufficient oxygen to promote further aerobic biodegradation.
- ◆ Detectable concentrations of microbial nutrients as phosphorous, ammonia nitrogen, organic (Kjeldahl) nitrogen, and magnesium were present in groundwater.

### 6.5 GROUNDWATER PLUME EVALUATION

A review of the groundwater monitoring results indicates that the petroleum hydrocarbon impacted plume is effectively defined, not migrating, and decreasing in size and concentration due to active remediation and natural attenuation. The July 1996 TPH-g isoconcentration map (Figure 8) shows the TPH-g plume prior to startup of the high-vacuum MPE system in November 1997. The >1,000 µg/L plume in July 1996 was approximately 450 by 230 feet, and the >10,000 µg/L plume was approximately 420 by 140 feet. The August 2005 TPH-g isoconcentration map shows the lateral extent of the >1,000 µg/L plume has been reduced to an irregularly shaped area approximately 380 by 120 feet, and the >10,000 µg/L plumes to be limited to a circular areas less than 40 feet in diameter (Figure 4).

The July 1996 benzene isoconcentration map (Figure 9) shows the benzene plume prior to startup of the high-vacuum MPE system in November 1997. The >1,000 µg/L plume in July 1996 was approximately

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430 by 160 feet. The August 2005 benzene isoconcentration map shows the lateral extent of the >1,000 µg/L plumes have been reduced to two circular areas less than 40 feet in diameter (Figure 5).

TPH-g detected in well MW-10 west of Building 123 appears to be a separate hydrocarbon plume and may not be related to historic fuel releases at the NEX site. It should be noted that BTEX was not detected in groundwater at this location.

The historical groundwater monitoring data (Appendix A) also shows that concentrations of TPH-g and benzene have been significantly reduced since startup of the high-vacuum MPE system in November 1997. Concentration-versus-time graphs for selected groundwater monitoring wells are provided in Appendix F.

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## 7.0 SYSTEM OPERATION AND MAINTENANCE

### 7.1 SYSTEM DESCRIPTION

The remediation system currently operating at the Site consists of a high vacuum, MPE system utilizing a combination of horizontal and vertical wells to extract vapors and groundwater impacted with petroleum hydrocarbons. A water-sealed, liquid-ring vacuum pump (LRP) was installed to extract both soil vapor and groundwater. The LRP is capable of extracting up to 200 standard cubic feet per minute (scfm) of vapor at a vacuum of 25 inches of mercury (inches Hg).

There are three horizontal wells (HW-1, HW-2, and HW-5) and 48 vertical wells (EW-5 through EW-13, EW-15 through EW-37, EW/AS-38 through EW/AS-42, EW/AS-50, EW/AS-51, EW-43 through EW-49, EW-52, and MW-31) capable of being used for extraction of vapors and groundwater impacted with petroleum hydrocarbons. However, to focus remediation efforts, different combinations of these wells are used for extraction, so not all wells are currently being used. The vapors and groundwater are transferred to an aboveground treatment system that employs a catalytic oxidizer (CatOx) for extracted vapors and a carbon adsorption system for the extracted groundwater. Treated vapor is discharged to the atmosphere under the Ventura County Air Pollution Control District (VCAPCD) Title V Federal Operating Permit for NBVC Point Mugu Site (Permit Number 0997). Treated groundwater is discharged to the municipal sewer system under a base wide Industrial Wastewater Discharge Permit (#OC-3) issued by the City of Oxnard.

In addition to the operation of the MPE wells, air is injected below the groundwater table along the northern, northwestern, and western sides of the USTs at biosparge wells AS-2 and AS-4, and multi-use wells EW/AS-38 through EW/AS-42, EW/AS-50, and EW/AS-51. The air is being added to enhance biodegradation of petroleum hydrocarbons in this area.

### 7.2 OPERATIONAL SUMMARY

Regular Site visits were conducted to ensure continuous system operation and optimization. During Site visits, system operating parameters, including system flow rates, temperature, hours of operation, pressures, and vacuums were monitored and recorded on field data sheets. Soil vapor samples were collected on a weekly basis from the system influent and effluent sample locations and were measured in the field using an organic vapor analyzer (OVA).

The system operated throughout the reporting period except for brief shut downs to perform routine system maintenance. The system is equipped with interlocks to prevent operation of the system outside its preset, safe operating range. Since the interlocks may shut down the system in the event of process surges, they also protect against unwanted releases of petroleum hydrocarbons and benzene into the atmosphere.

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During the reporting period, the extraction of groundwater and hydrocarbon vapors continued in the vicinity of the USTs northwest of Building 161, and in the vicinity of fuel dispenser islands to the southeast of Building 161. During the reporting period, various combinations of wells were extracted from in order to optimize the system. At any given time, 16 to 23 wells were open for extraction in the area of the USTs and the primary plume, including the horizontal wells (HW-1, HW-2, and HW-5). As of July 27, 2005, the following wells were on-line: AS-2, AS-4, EW-10, EW-22, EW-26, EW-27, EW-32, EW-34, EW-35, EW-36, EW-38, EW-39, EW-42, EW-45, EW-47, EW-48, EW-49, EW-50, EW-51, EW-52, HW-1, HW-2, and HW-5.

During this period the wells were in the following operational modes:

- ◆ AS-2, AS-4, and EW/AS-50 (air sparge mode throughout the period);
- ◆ EW/AS-38 and EW/AS-39 (air sparge mode since April 5, 2005);
- ◆ EW-10, EW-22, EW-34, EW-35, EW-36, EW-45, EW/AS-47, EW/AS-49, EW/AS-51, EW/AS-52, and HW-5 (extraction mode throughout the period);
- ◆ EW-26 (extraction mode from March 8 to April 28, 2005);
- ◆ EW-27 (extraction mode from April 28 to June 23, 2005);
- ◆ EW-32 (extraction mode since April 28, 2005);
- ◆ EW/AS-42 and EW-48 (extraction mode Since April 5, 2005);
- ◆ HW-1 (extraction mode from March 8 to April 5, 2005, and from April 11 to June 23, 2005); and
- ◆ HW-2 (extraction mode from April 1 to April 5, 2005, and from April 18 to June 23, 2005).

### 7.3 ESTIMATED MASS OF PETROLEUM HYDROCARBONS REMOVED - VAPOR PHASE

Based on the records of operating parameters from the MPE and CatOx systems, the estimated mass of petroleum hydrocarbons removed in the vapor phase was calculated using the following equation:

$$M = Q \times C \times RH \times CF$$

Where:

M = mass removed in pounds

Q = flow rate in scfm

C = concentration of petroleum hydrocarbons in milligrams per cubic meter ( $mg/m^3$ ) calculated from lower explosive limit (LEL) measurements of the extracted vapor

RH = number of hours the system operated

CF = conversion factor to convert scfm and  $mg/m^3$  to cubic feet per hour ( $ft^3/hr$ ) and pounds per cubic foot ( $lb/ft^3$ )

The following correlation was used to determine the concentration based on the OVA readings:

$$12,000 \text{ ppmv} = 49,200 \text{ mg/m}^3$$

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Based on the operating data from the CatOx system, the estimated amount of petroleum hydrocarbons removed from the subsurface is summarized in Table 4. A total of approximately 118 pounds of petroleum hydrocarbons were removed in approximately 1,376 hours of operation during the reporting period (March 3 through July 20, 2005) at an average removal rate of 0.08 pounds per hour. A total of approximately 172,628 pounds of petroleum hydrocarbons have been removed since the startup of the CatOx system in September 1996. Figure 10 shows the cumulative petroleum hydrocarbons removed by the CatOx system since the startup of the system. These numbers should be considered as indicators and not absolute numbers due to inherent approximations in calculating total mass extracted and inaccuracy of the LEL sensor.

### **7.4 ESTIMATED MASS OF PETROLEUM HYDROCARBONS REMOVED - LIQUID PHASE**

Based on the quantity of groundwater extracted and concentrations of TPH-g and benzene concentrations in extracted groundwater for this reporting period, the amount of TPH-g and benzene removed from groundwater can be estimated for this reporting period using the following equation:

$$M = V \times C \times CF$$

Where:

M = mass removed in pounds

V = volume of groundwater/free product extracted in gallons

C = influent concentration of benzene or TPH-g in  $\mu\text{g}/\text{L}$

CF = conversion factor to convert gallons to liters and micrograms to pounds

Based on the data collected during groundwater system operations, the estimated amount of TPH-g and benzene removed is summarized in Table 5. A total of approximately 0.18 pounds of TPH-g and approximately 0.01 pounds of benzene were removed during this reporting period (March 3, 2005 through July 27, 2005). Since January 1998, a total of 54.4 pounds of TPH-g and 1.96 pounds of benzene have been removed. Figure 11 shows the cumulative amount of groundwater removed since the startup of the system. Figure 12 shows the cumulative amount of benzene and TPH-g removed with the LRP since the startup of the system.

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### 8.0 SCHEDULE

The tentative schedule for the upcoming Site activities for the key tasks listed below is as follows:

- ◆ Shut down of MPE system (September 2005);
- ◆ Construction and implementation of biosparge system (October 2005);
- ◆ Submit Revised Groundwater Monitoring Work Plan to RWQCB (October 2005);
- ◆ Conduct semi-annual monitoring (February 2006).

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### **9.0 STATEMENT OF LIMITATIONS**

The conclusions presented in this report are professional opinions based solely upon the data described in this report. They are intended exclusively for the purpose outlined herein and the site location and project indicated. This report was prepared for the sole use and benefit of NAVFACENGCOM. The scope of services performed in execution of this semi-annual monitoring may not be appropriate to satisfy the needs of other users, and any use or reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

Given that the scope of services for this semi-annual monitoring event was limited to the locations indicated, and that conditions may vary between the points explored, it is possible that a currently unrecognized subsurface issue may be present at the Site. Opinions relating to environmental, geologic, and geotechnical conditions are based on limited data and actual conditions may vary from those encountered at the times and locations where data were obtained. No express or implied representation or warranty is included or intended in this report except that the work was performed within the limits prescribed by NAVFACENGCOM with the customary thoroughness and competence of professionals working in the same area on similar projects.

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**Table 1**  
**2005 August Semi-Annual Groundwater Levels and Parameters**  
**Point Mugu Naval Exchange Gasoline Station**  
**Point Mugu, California**

Monitoring Well No.	Date Collected	Notes	GROUNDWATER LEVELS (8/2/05)					GROUNDWATER SAMPLING FIELD PARAMETERS					
			Depth to Groundwater (feet bgs)	Depth to Separate Phase Product (feet bgs)	Product Thickness (ft)	Casing Elevation (MSL)	Groundwater Elevation (MSL)	pH	Specific Conductivity ( $\mu$ S/cm)	Turbidity (NTU)	Temperature (Celsius)	Dissolved Oxygen (mg/L)	O.R.P. (mV)
GTI-3	8/03/05	1	5.15	Not Present	0.00	8.44	3.29	7.40	31,824	5.0	19.22	0.00	-6.6
GTI-6	8/02/05	1	4.98	Not Present	0.00	10.82	5.84	7.37	2,038	0.0	23.23	0.03	111.8
MW-2	8/02/05		6.28	Not Present	0.00	9.99	3.71	7.80	5,305	10.7	28.50	0.13	-10.7
MW-4	8/03/05	1	5.92	Not Present	0.00	9.02	3.10	7.69	4,966	53.6	23.08	0.18	-49.7
MW-6	8/04/05	1	4.74	Not Present	0.00	8.77	4.03	9.05	5,730	2.9	26.80	1.67	-296.5
MW-8	8/03/05	1	4.90	Not Present	0.00	9.61	4.71	7.74	4,069	291.1	25.33	1.61	64.8
MW-9	8/02/05	1	4.54	Not Present	0.00	8.96	4.42	7.20	3,903	37.3	27.28	0.27	81.5
MW-10	8/04/05	1,2	5.55	Not Present	0.00	10.13	4.58	7.72	17,677	61.2	24.55	0.60	-195.4
MW-12	8/02/05		3.84	Not Present	0.00	8.34	4.50	7.33	1,637	11.5	28.81	0.07	2.9
MW-13	8/03/05	1	2.50	Not Present	0.00	8.38	5.88	9.02	975	5.4	28.92	5.05	-177.3
MW-14	8/02/05		2.82	Not Present	0.00	8.14	5.32	7.44	2,514	37.8	26.72	0.38	65.8
MW-15	8/03/05	1,2	3.79	Not Present	0.00	8.62	4.83	7.94	2,887	104.7	31.30	0.39	-40.3
MW-17	8/04/05	1	5.48	Not Present	0.00	9.41	3.93	8.57	2,941	13.20	26.70	1.47	-238.8
MW-18	8/04/05		5.01	Not Present	0.00	9.23	4.22	8.21	5,936	4.9	26.49	1.15	-229.1
MW-20	8/02/05	1	6.43	Not Present	0.00	9.26	2.83	7.51	3,627	3.5	26.62	0.72	-13.6
MW-21	8/02/05	1	5.21	Not Present	0.00	8.38	3.17	8.04	18,341	7.9	24.33	0.23	-61.9
MW-23	8/02/05	2	6.25	Not Present	0.00	9.50	3.25	7.12	2,572	5.0	28.04	0.57	19.2
MW-23X	8/02/05	1	6.31	Not Present	0.00	9.91	3.60	7.10	3,825	9.7	27.83	0.41	18.7
MW-25	8/03/05	1	5.64	Not Present	0.00	10.26	4.62	8.19	9,300	5.6	20.60	0.08	-54.2
MW-26	8/03/05	1	3.46	Not Present	0.00	8.64	5.18	7.65	4,771	10.1	25.28	0.23	48.0
MW-27	8/03/05		2.78	Not Present	0.00	8.84	6.06	7.53	1,230	24.6	26.41	0.63	72.0
MW-31	8/04/05	1	4.68	Not Present	0.00	8.93	4.25	8.50	6,656	7.0	25.18	0.43	-201.3
MW-32	8/04/05	1	7.90	Not Present	0.00	10.26	2.36	8.35	31,444	3.4	23.06	0.46	-197.1
MW-33	8/04/05		6.72	Not Present	0.00	9.77	3.05	8.70	8,135	4.0	28.01	1.40	-241.8
MW-34	8/04/05	3	--	Not Present	0.00	8.74	--	--	--	--	--	--	--
MW-35	8/04/05	1	6.71	Not Present	0.00	9.96	3.25	8.26	12,590	4.6	20.99	0.97	-224.8
MW-36	8/02/05		5.11	Not Present	0.00	10.67	5.56	7.01	1,144	0.0	21.45	0.07	119.5
EW-43	8/04/05		6.35	Not Present	0.00	9.96	3.61	8.13	8,745	19.1	25.41	0.76	-186.5

Explanation/Notes: 1 - Bailer Sample  
 2 - Duplicate Sample  
 3 - Well Damaged/ inaccessible  
 -- - not analyzed/not measured  
 MSL - Mean Sea Level  
 bgs - Below ground surface  
 Groundwater Elevation reference to MSL  
 Groundwater Elevation = Casing Elevation - Depth to Groundwater.

$\mu$ S/cm - microSiemens per centimeter  
 mg/L - milligrams per liter  
 mV - millivolt  
 NTU - nephelometric turbidity units  
 O.R.P. - Oxidation Reduction Potential  
 ft - feet

**Table 2**  
**2005 August Semi-Annual Groundwater Analytical Results**  
**Point Mugu Naval Exchange Gasoline Station**  
**Point Mugu, California**

Monitoring/ Extraction Well I.D.	Sample Date	Notes	LABORATORY ANALYTICAL RESULTS										
			Volatile Organics by EPA Method 8260B										
			TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	m,p-Xylenes ( $\mu\text{g/L}$ )	o-Xylenes ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )
GTI-3	8/03/05	1	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
GTI-6	8/02/05	1	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-2	8/02/05		70J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	0.43J	< 2	< 2	< 2	< 10
MW-4	8/03/05	1	120	2.3	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	6.4J
MW-6	8/04/05	1	2,800	< 0.5	0.63	43.0	5.2	0.89	4.2	< 2	< 2	< 2	< 10
MW-8	8/03/05	1	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-9	8/02/05	1	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-10	8/04/05	1	3,800	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	640
	8/04/05	1,2	4,200	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	570
MW-12	8/02/05		< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-13	8/03/05	1	2,200	35	1.6	18	1.3	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-14	8/02/05		< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-15	8/03/05	1	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	9.5J
	8/03/05	1,2	140	0.78	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-17	8/04/05	1	120	1.3	< 0.5	0.41J	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-18	8/04/05		< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-20	8/02/05	1	110	< 0.5	< 0.5	< 0.5	1.1	< 0.5	7.3	< 2	< 2	< 2	< 10
MW-21	8/02/05	1	330	29	1.4	0.77	1.8	0.68	31	< 2	2.5	< 2	12
MW-23	8/02/05		50J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
	8/02/05	2	50J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-23X	8/02/05	1	240	< 0.5	< 0.5	< 0.5	< 1	< 0.5	2.2	< 2	0.72J	< 2	11
MW-25	8/03/05	1	150	< 0.5	< 0.5	0.30J	< 1	< 0.5	2.2	< 2	0.96J	< 2	< 10
MW-26	8/03/05	1	40J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-27	8/03/05		< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
MW-31	8/04/05	1	< 100	0.82	< 0.5	< 0.5	< 1	< 0.5	2.6	< 2	< 2	< 2	< 10
MW-32	8/04/05	1	12,000	64	< 0.5	< 0.5	< 1	< 0.5	19,000	0.97J	1.3J	46	14,000
MW-33	8/04/05		3,300	2,100	8.4	370	18	26	23	< 2	4.3	< 2	15
MW-34	8/04/05	3	--	--	--	--	--	--	--	--	--	--	--
MW-35	8/04/05	1	6,500	3,800	1.3	55	2.4	< 0.5	120	< 2	1.2J	< 2	48
MW-36	8/02/05		< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 2	< 2	< 2	< 2	< 10
EW-43	8/04/05		230	5.0	< 0.5	< 0.5	< 1	< 0.5	5.8	< 2	< 2	< 2	140

Explanation/Notes:

1 - Bailer Sample

2 - Duplicate Sample

3 - Well Damaged/ inaccessible

$\mu\text{g/L}$  - micrograms per liter

< - Analytical result less than the detection limit indicated

-- - not analyzed/not measured

TPH-g - Total Petroleum Hydrocarbons, gasoline range

DIPE - Di-isopropyl Ether

TAME - Tertiary Amyl Methyl Ether

TBA - Tertiary Butyl Alcohol

MTBE - Methyl Tertiary Butyl Ether

ETBE - Ethyl Tertiary Butyl Ether

**Table 3**  
**2005 August Semi-Annual Groundwater Analytical Results**  
**For Attenuation Parameters, Nutrients, Cations, and Anions**  
**Point Mugu Naval Exchange Gasoline Station**  
**Point Mugu, California**

Monitoring/ Extraction Well I.D.	Sample Date	LABORATORY ANALYTICAL RESULTS REPORTED IN mg/L																					
		Calcium ( $\text{Ca}^+$ )	Magnesium ( $\text{Mg}^+$ )	Sodium ( $\text{Na}^+$ )	Potassium ( $\text{K}^+$ )	Total Iron	Total Manganese	Total Zinc	Bromide ( $\text{Br}$ )	Chloride ( $\text{Cl}^-$ )	Nitrate ( $\text{NO}_3^-$ )	Nitrite ( $\text{NO}_2^-$ )	Sulfate ( $\text{SO}_4^{2-}$ )	Ferrous Iron ( $\text{Fe}^{2+}$ )	Barium	Fluoride	Total Phosphorous	Sulfide	Ammonia Nitrogen	TKN	Total Alkalinity	Dissolved Methane	TDS
MW-32	8/04/05	180	600	8,200	190	12	0.75	0.028	37	17,000	<1	23	6,700	0.56	<0.2	0.19	2.2	<0.05	26	3.1	1,955	40	19,660
MW-36	8/02/05	88	41	130	13	0.096J	0.52	0.026	0.22	41	<0.1	<0.1	150	<0.1	<0.2	1.7	0.19	<0.05	3.2	0.15	425	<2	780
EW-43	8/04/05	250	220	1,800	63	18	2.2	0.02	7.8	1,700	<1	<1	1,500	12	<0.2	<0.1	3.2	<0.05	8.7	2.6	1,480	87	6,800

Explanation/Notes:

mg/L - milligrams per liter

< - Analytical result less than the method reporting limit indicated

J - Estimated Value based on analytical result less than the method reporting limit indicated and greater than the method detection limit

TKN - Total Kjeldahl Nitrogen

**TABLE 4**  
**TOTAL AMOUNT OF HYDROCARBONS REMOVED**  
**IN THE VAPOR PHASE (CATOX)**  
**3/3/2005 - 7/27/2005**

**NAVAL BASE VENTURA COUNTY**  
**NEX GAS STATION**  
**POINT MUGU, CALIFORNIA**

Date	Time	LEL <sup>1</sup> (%)	Flow Rate (scfm) <sup>2</sup>	Concentration (mg/m <sup>3</sup> ) <sup>3</sup>	Hour Meter Reading (hours)	Hours	Mass Removed (lbs) <sup>4</sup>	Mass Removed This Period (lbs) <sup>4</sup>
3/3/2005	9:00	1.2	59	566	50,573.8	26.0	3.25	3.3
3/10/2005	9:30	1.0	67	512	50,597.8	24.0	3.08	6.3
3/17/2005	NM	NM	NM	NM	NM	NM	0.00	6.3
3/24/2005	10:00	1.9	63	910	50,623.2	25.4	5.46	11.8
3/30/2005	11:00	1.3	59	640	50,710.2	87.0	12.30	24.1
4/7/2005	9:30	1.5	71	738	50,786.4	76.2	14.95	39.0
4/15/2005	9:00	0.5	77	246	50,882.4	96.0	6.81	45.8
4/21/2005	11:30	0.5	80	246	50,930.9	48.5	3.57	49.4
4/27/2005	10:00	0.5	79	226	51,072.6	141.7	9.49	58.9
5/5/2005	10:30	0.4	79	197	51,252.0	179.4	10.45	69.4
5/12/2005	7:30	0.3	88	133	51,431.3	179.3	7.85	77.2
5/18/2005	9:00	0.2	84	108	51,544.5	113.2	3.85	81.1
5/25/2005	10:00	0.3	74	133	51,574.5	30.0	1.10	82.2
6/1/2005	9:00	0.4	91	182	51,599.5	25.0	1.55	83.7
6/6/2005	8:30	0.3	90	133	51,619.6	20.1	0.90	84.6
6/15/2005	9:30	0.3	91	167	51,644.6	25.0	1.43	86.0
6/23/2005	13:00	0.4	68	172	51,707.2	62.6	2.75	88.8
6/30/2005	7:30	0.8	86	413	51,850.7	143.5	19.10	107.9
7/6/2005	7:30	0.8	82	369	51,874.1	23.4	2.65	110.5
7/13/2005	7:00	0.5	82	241	51,900.2	26.1	1.93	112.5
7/20/2005	9:00	0.9	73	433	51,950.2	50.0	5.92	118.4
7/27/2005	NM	NM	NM	NM	NM	NM	NM	NM

Notes:

1. LEL: lower explosive limit
2. scfm: standard cubic feet per minute
3. mg/m<sup>3</sup>: milligrams per cubic meter
4. lbs: pounds

NA: not applicable

NM: not measured

Data used to calculate total mass removed is taken from field logs.

LEL was calculated based on the measured inlet OVA concentration for the period (3/3/2005 - 7/27/2005).

System Notes:

System shutdown 3/16/2005 to 3/21/2005 due to electrical problems.

System shutdown 7/27/2005 to 8/5/2005 due to GW sampling event.

TABLE 5

**TOTAL AMOUNT OF BENZENE AND TPH REMOVED  
FROM THE LIQUID PHASE (LIQUID RING PUMP)**  
3/3/2005 - 7/27/2005

**NAVAL BASE VENTURA COUNTY  
NEX GAS STATION  
POINT MUGU, CALIFORNIA**

Date	Drainmeter (gallons)	Water Removed (gallons)	Total Water Removed (gallons)	Benzene Concentration <sup>1</sup> ( $\mu\text{g/L}$ ) <sup>2</sup>	Benzene Removed (lbs) <sup>3</sup>	Total Benzene Removed (lbs) <sup>3</sup>	Cumulative Benzene Removed (lbs) <sup>3</sup>	TPH-g <sup>4</sup> Concentration <sup>1</sup> ( $\mu\text{g/L}$ ) <sup>2</sup>	TPH-g <sup>4</sup> Removed (lbs) <sup>3</sup>	Total TPH-g <sup>4</sup> Removed (lbs) <sup>3</sup>	Cumulative TPH-g Removed (lbs) <sup>3</sup>
3/3/2005	464575	16,385	3,157,283	5.1	7.0E-04	0.000000	1.947	98	0.0134	0.000	54.23
3/10/2005	484563	19,988	3,177,271	5.1	8.5E-04	0.000851	1.948	98	0.0163	0.016	54.25
3/17/2005	484563	0	3,177,271	5.1	0.0E+00	0.000851	1.948	98	0.0000	0.016	54.25
3/24/2005	512824	28,261	3,205,532	5.1	1.2E-03	0.002054	1.949	98	0.0231	0.039	54.27
3/30/2005	526350	13,526	3,219,058	5.1	5.8E-04	0.002629	1.950	98	0.0111	0.051	54.28
4/7/2005	546570	20,220	3,239,278	5.1	8.6E-04	0.003490	1.951	98	0.0165	0.067	54.30
4/15/2005	567515	20,945	3,260,223	5.1	8.9E-04	0.004382	1.952	98	0.0171	0.084	54.31
4/21/2005	582311	14,796	3,275,019	5.1	6.3E-04	0.005011	1.952	98	0.0121	0.096	54.33
4/27/2005	596867	14,556	3,289,575	5.1	6.2E-04	0.005631	1.953	98	0.0119	0.108	54.34
5/5/2005	616812	19,945	3,309,520	5.1	8.5E-04	0.006480	1.954	98	0.0163	0.125	54.36
5/12/2005	631791	14,979	3,324,499	5.1	6.4E-04	0.007117	1.954	98	0.0123	0.137	54.37
5/18/2005	642684	10,893	3,335,392	5.1	4.6E-04	0.007581	1.955	98	0.0089	0.146	54.38
5/25/2005	656824	14,140	3,349,532	5.1	6.0E-04	0.008183	1.955	98	0.0116	0.157	54.39
6/1/2005	670470	13,646	3,363,178	5.1	5.8E-04	0.008764	1.956	98	0.0112	0.168	54.40
6/6/2005	683975	13,505	3,376,683	0.58	6.5E-05	0.008829	1.956	0	0.0000	0.168	54.40
6/15/2005	696988	13,013	3,389,696	0.58	6.3E-05	0.008892	1.956	0	0.0000	0.168	54.40
6/23/2005	708642	11,654	3,401,350	0.58	5.6E-05	0.008949	1.956	0	0.0000	0.168	54.40
6/30/2005	719588	10,946	3,412,296	0.58	5.3E-05	0.009002	1.956	0	0.0000	0.168	54.40
7/6/2005	730962	11,374	3,423,670	0.58	5.5E-05	0.009057	1.956	0	0.0000	0.168	54.40
7/13/2005	741156	10,194	3,433,864	0.58	4.9E-05	0.009106	1.956	0	0.0000	0.168	54.40
7/20/2005	748708	7,552	3,441,416	0.58	3.7E-05	0.009142	1.956	0	0.0000	0.168	54.40
7/27/2005	756868	8,160	3,449,576	0.58	3.9E-05	0.009182	1.956	0	0.0000	0.168	54.40

Notes:

1. Benzene and TPH-g are sampled quarterly.
2. ug/l: micrograms per liter. Concentration is based on influent concentrations.
3. lbs: pounds
4. TPH-g: total petroleum hydrocarbons, gasoline range

System Notes:

- System shutdown 3/16/2005 to 3/21/2005 due to electrical problems.  
System shutdown 7/27/2005 to 8/5/2005 due to GW sampling event.



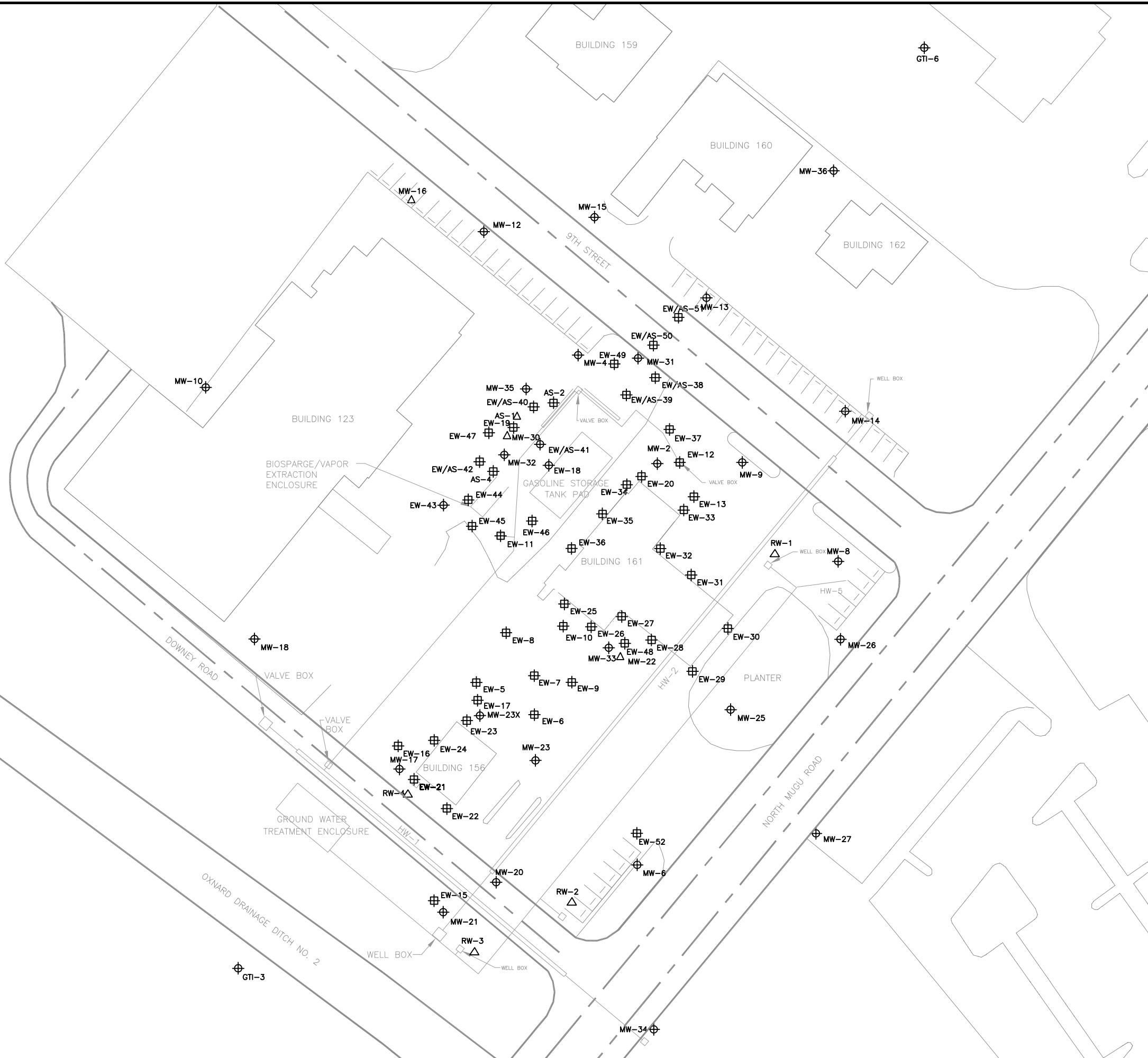
REFERENCE: USGS 7.5 Minute Series Point Mugu, California Quad,  
Photorevised 1974

FIGURE 1  
**SITE VICINITY MAP**  
NAVAL BASE VENTURA COUNTY  
NEX GAS STATION  
POINT MUGU, CALIFORNIA



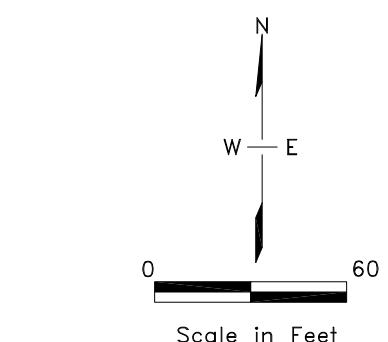
0 1/2 1  
Scale in Miles

**URS**



**EXPLANATION**

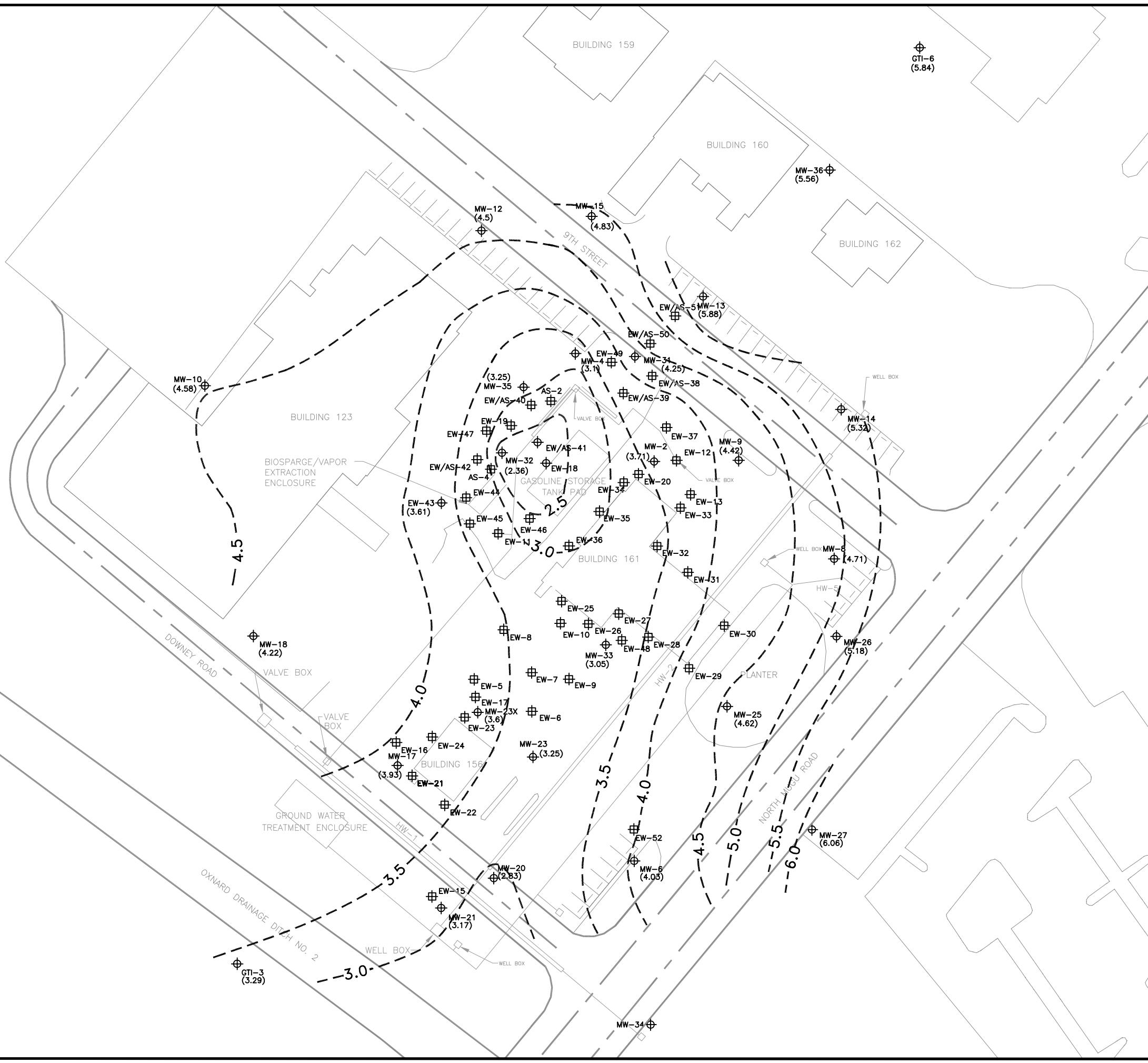
- ⊕ MW-14 GROUNDWATER MONITORING WELL
- ⊕ EW-43 EXTRACTION WELL
- △ RW-2 ABANDONED WELL



**URS Corporation**

**SITE MAP**

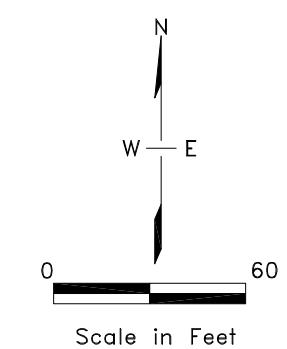
Proj. No.:	29868489	Date:	AUGUST 2005
Project:	NAVAL BASE VENTURA COUNTY NEX GAS STATION POINT MUGU, CALIFORNIA	CAD ID.:	
Figure:	2		

**EXPLANATION**

⊕ GROUNDWATER MONITORING WELL  
MW-27 AND GROUNDWATER ELEVATION  
(6.06) (ft MSL)

⊕ GROUNDWATER EXTRACTION WELL  
EW-43 AND GROUNDWATER ELEVATION  
(3.61) (ft MSL)

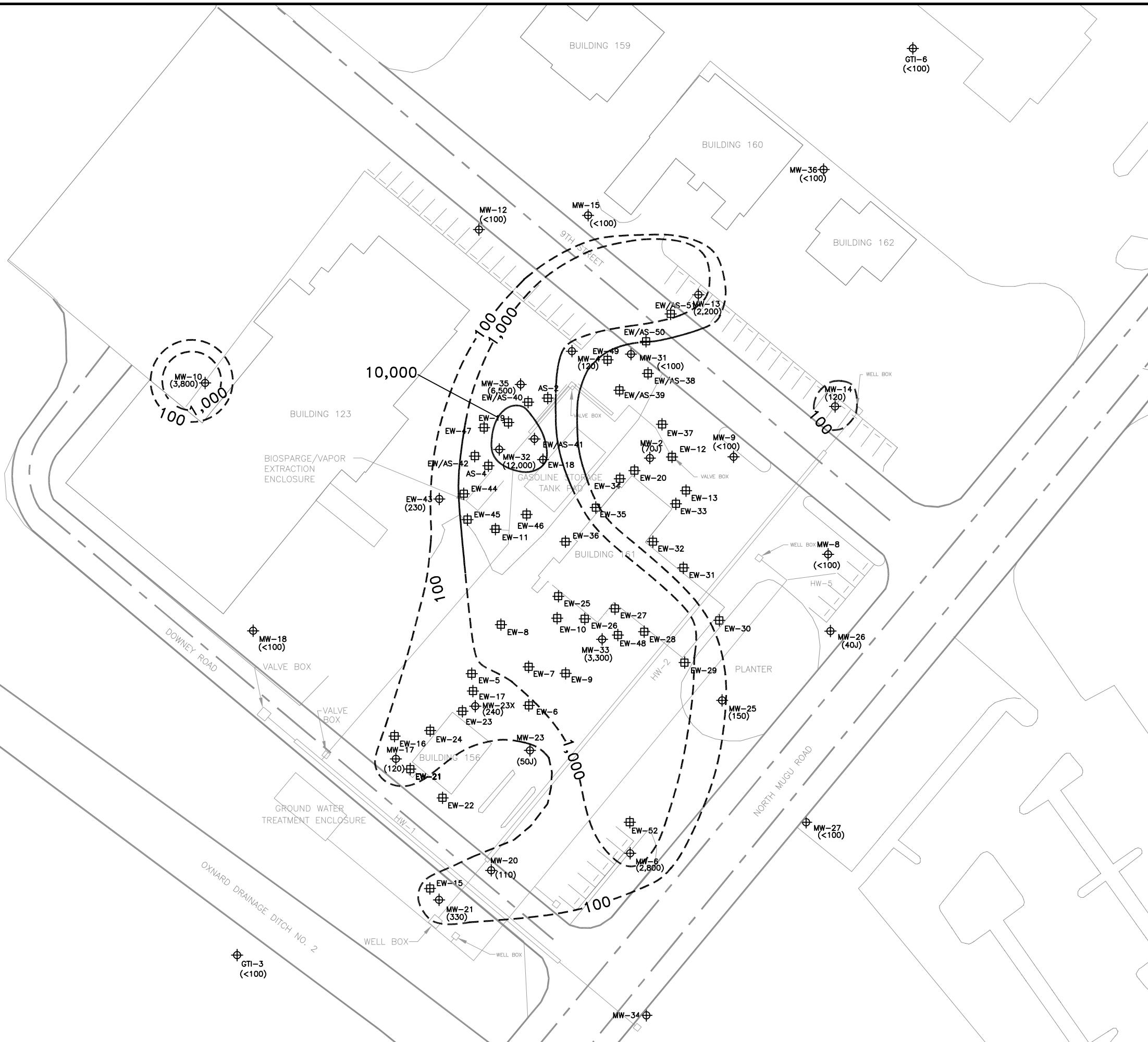
— 4.5 — GROUNDWATER POTENTIOMETRIC  
SURFACE CONTOUR



**URS Corporation**

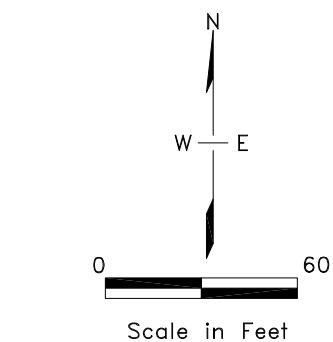
**GROUNDWATER ELEVATION  
CONTOUR MAP AUGUST 2005**

Proj. No.:	29868489	Date:	AUGUST 2005
Project:	NAVAL BASE VENTURA COUNTY NEX GAS STATION POINT MUGU, CALIFORNIA	CAD ID.:	
Figure:	3		



**EXPLANATION**

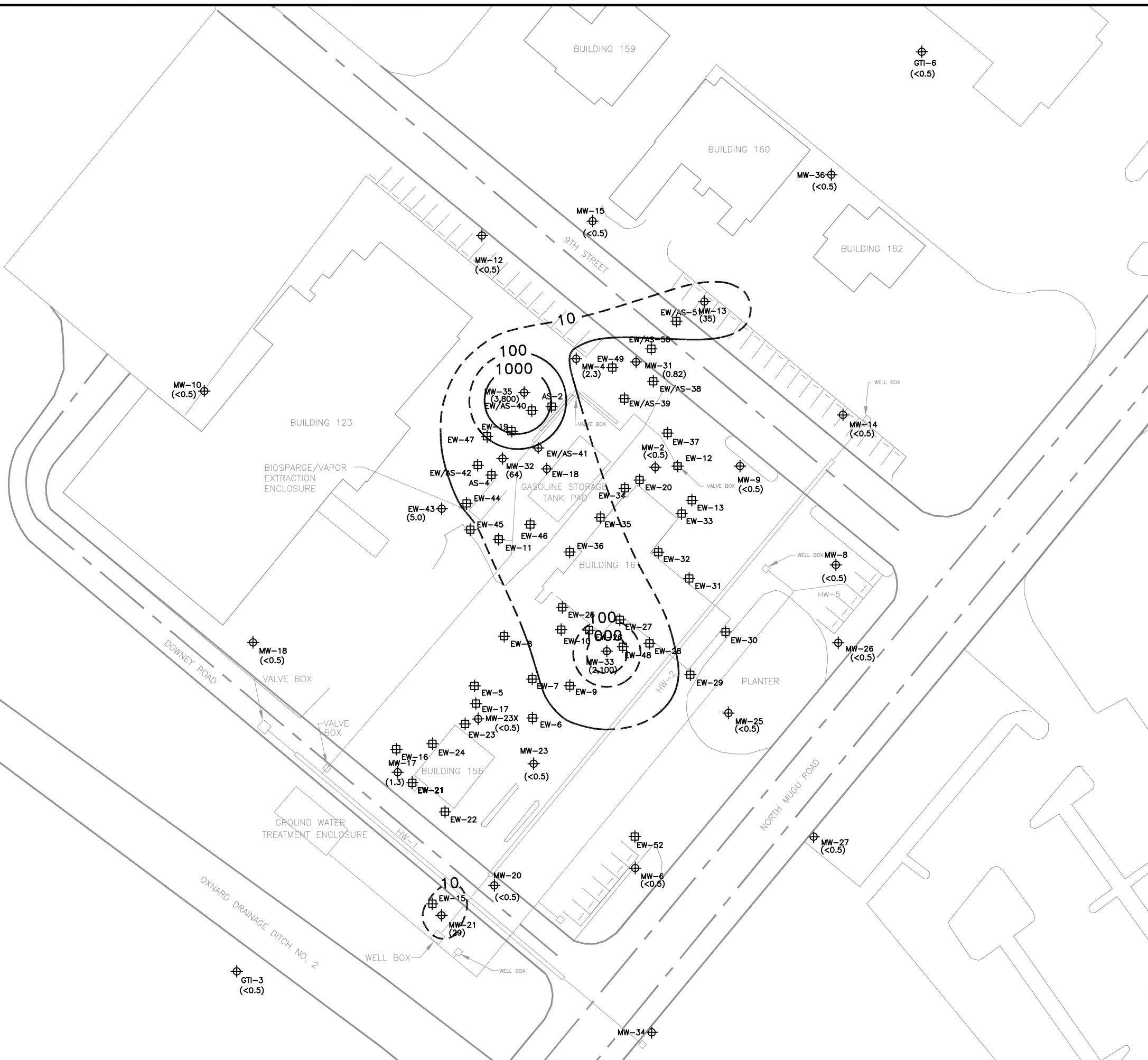
- MW-14 (120)** GROUNDWATER MONITORING WELL WITH TPH<sub>g</sub> CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- EW-43** EXTRACTION WELL
- 100—** ISOCONCENTRATION CONTOUR



**URS Corporation**

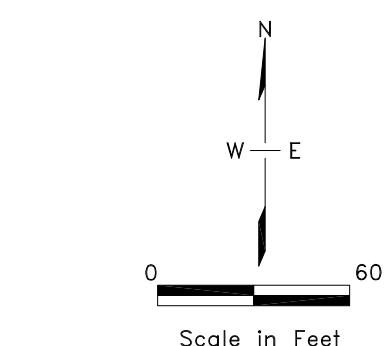
**TPH-g ISOCONCENTRATION  
MAP AUGUST 2005**

Proj. No.: 29868489	Date: AUGUST 2005
Project: NAVAL BASE VENTURA COUNTY NEX GAS STATION POINT MUGU, CALIFORNIA	CAD ID: _____
Figure: 4	_____



**EXPLANATION**

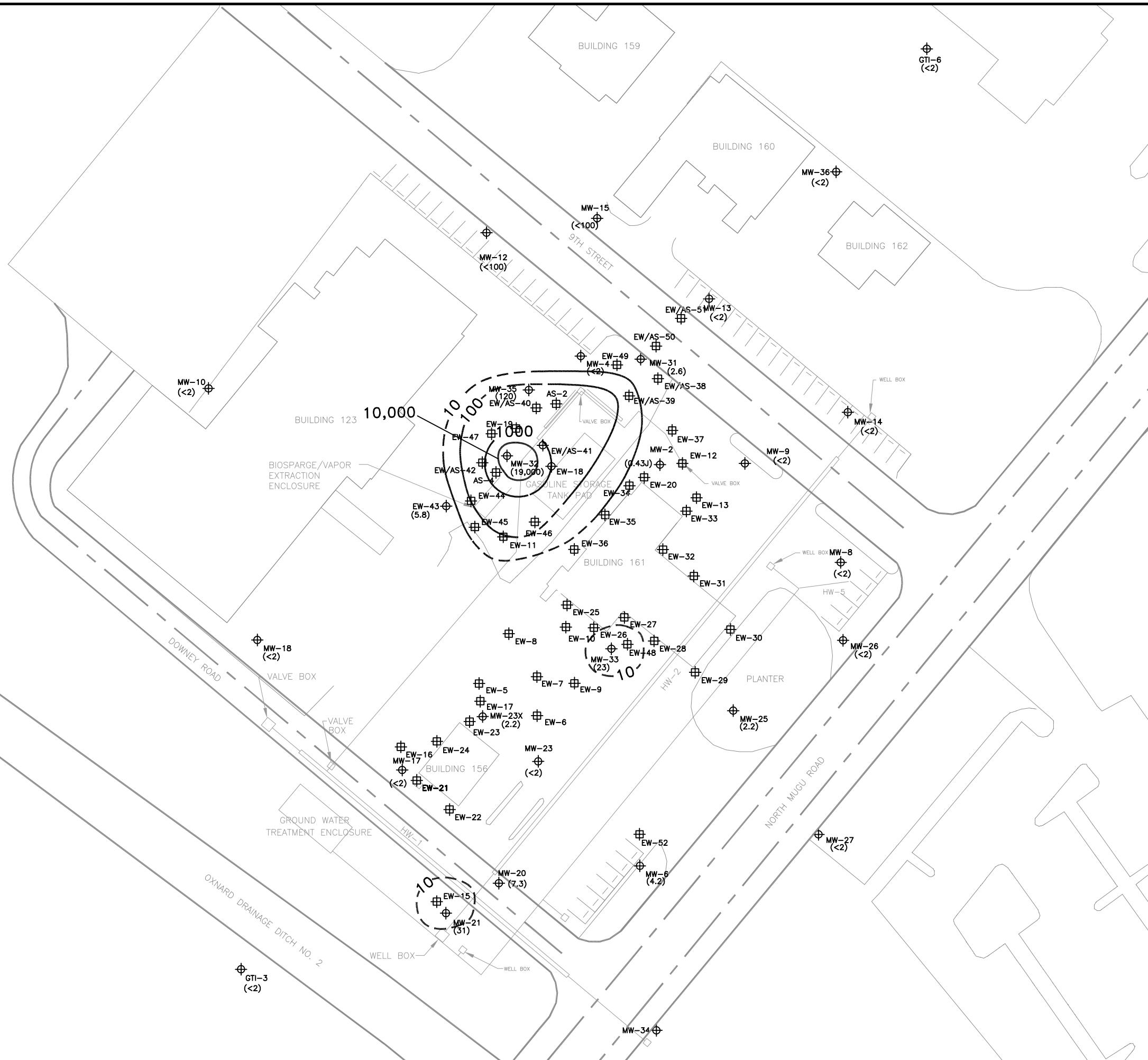
- ⊕ MW-14 (<0.5) GROUNDWATER MONITORING WELL WITH BENZENE CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g/L}$ )
- ⊕ EW-43 EXTRACTION WELL
- 100 — ISOCONCENTRATION CONTOUR



**URS Corporation**

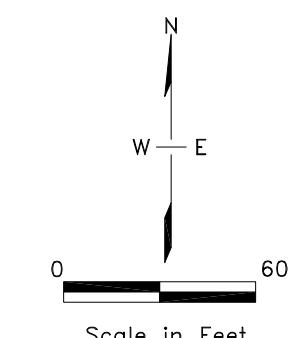
**BENZENE ISOCONCENTRATION MAP  
AUGUST 2005**

Proj. No.:	29868489	Date:	AUGUST 2005
Project:	NAVAL BASE VENTURA COUNTY NEX GAS STATION POINT MUGU, CALIFORNIA	CAD ID.:	
Figure:	5		



**EXPLANATION**

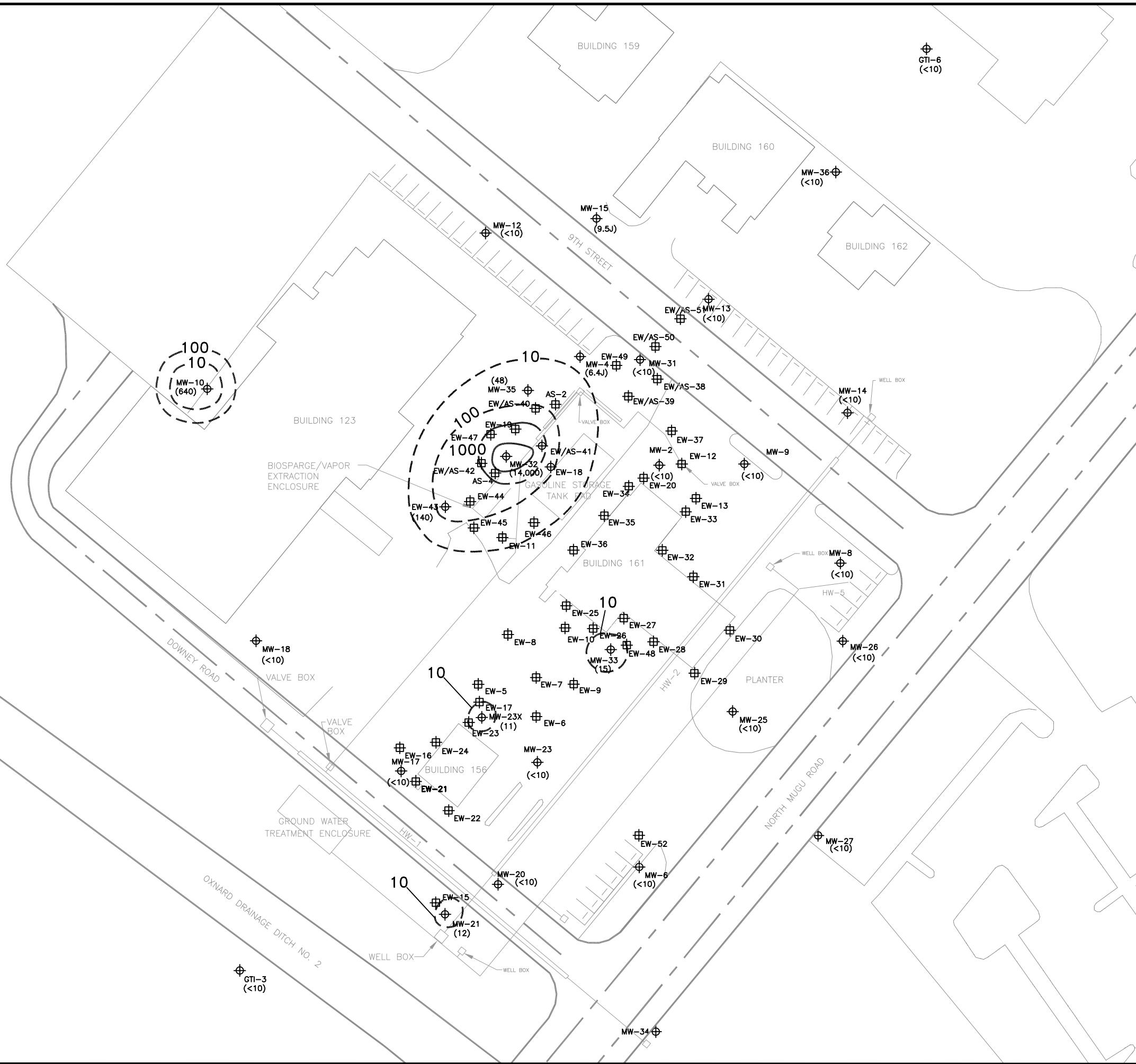
- ⊕ MW-14 (<2) GROUNDWATER MONITORING WELL WITH MTBE CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g/L}$ )
- ⊕ EW-43 EXTRACTION WELL
- 100 — ISOCONCENTRATION CONTOUR



**URS Corporation**

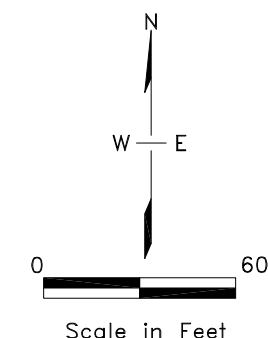
**MTBE ISOCONCENTRATION  
MAP AUGUST 2005**

Proj. No.:	29868489	Date:	AUGUST 2005
Project:	NAVAL BASE VENTURA COUNTY NEX GAS STATION POINT MUGU, CALIFORNIA	CAD ID.:	
Figure:	6		



**EXPLANATION**

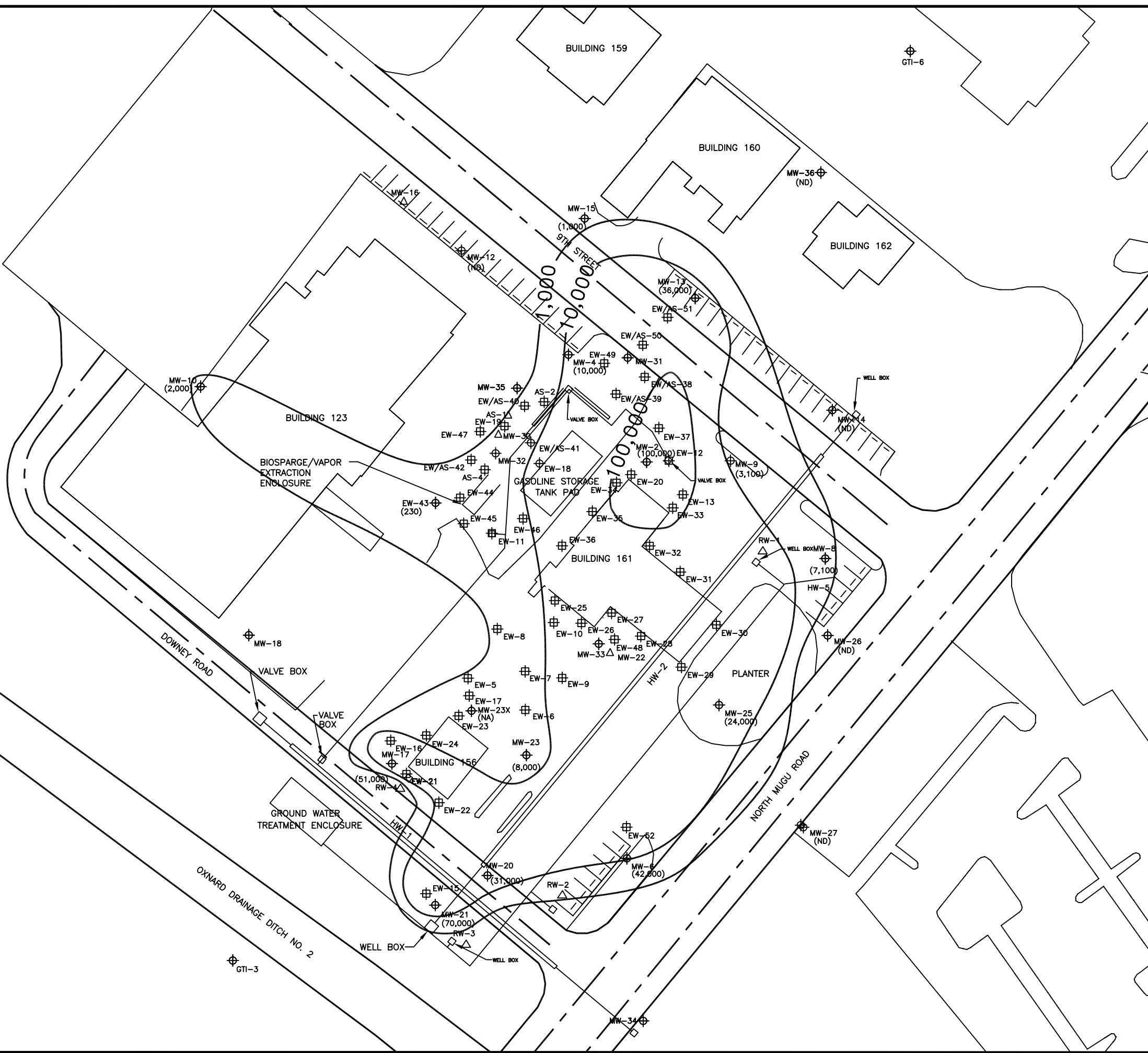
- ⊕ MW-14 (<10) GROUNDWATER MONITORING WELL WITH TBA CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g}/\text{L}$ )
- ⊕ EW-43 EXTRACTION WELL
- 100 — ISOCONCENTRATION CONTOUR



**URS Corporation**

**TBA ISOCONCENTRATION MAP AUGUST 2005**

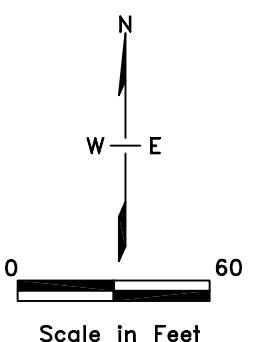
Proj. No.:	29868489	Date:	AUGUST 2005
Project:	NAVAL BASE VENTURA COUNTY NEX GAS STATION POINT MUGU, CALIFORNIA	CAD ID.:	
Figure:	7		



**EXPLANATION**

- $\diamond$  MW-14 (120) GROUNDWATER MONITORING WELL WITH TPH<sub>g</sub> CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g}/\text{L}$ )
- $\diamond$  EW-43 EXTRACTION WELL

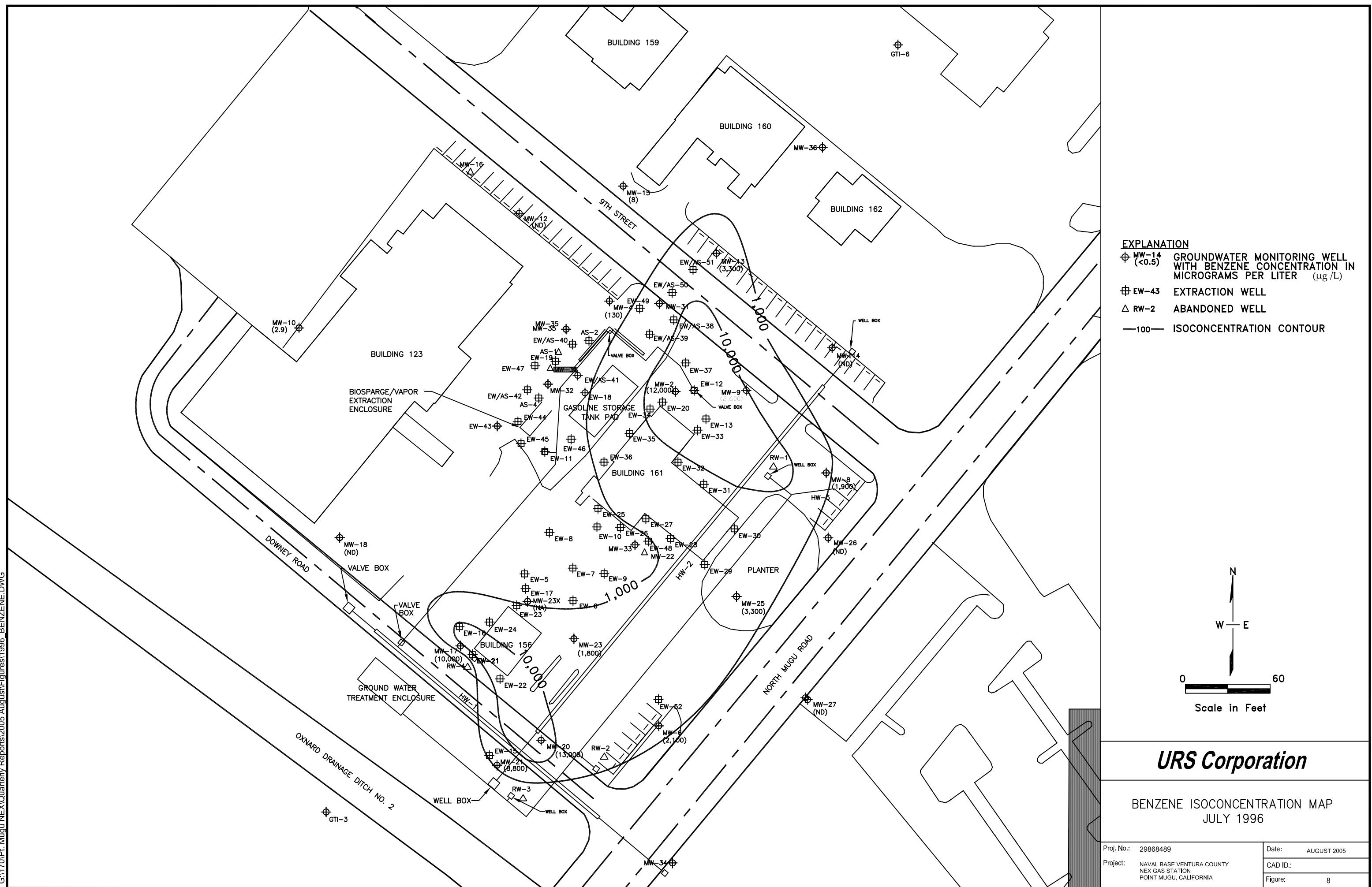
—100— ISOCONCENTRATION CONTOUR



**URS Corporation**

TPH-g ISOCONCENTRATION  
MAP JULY 1996

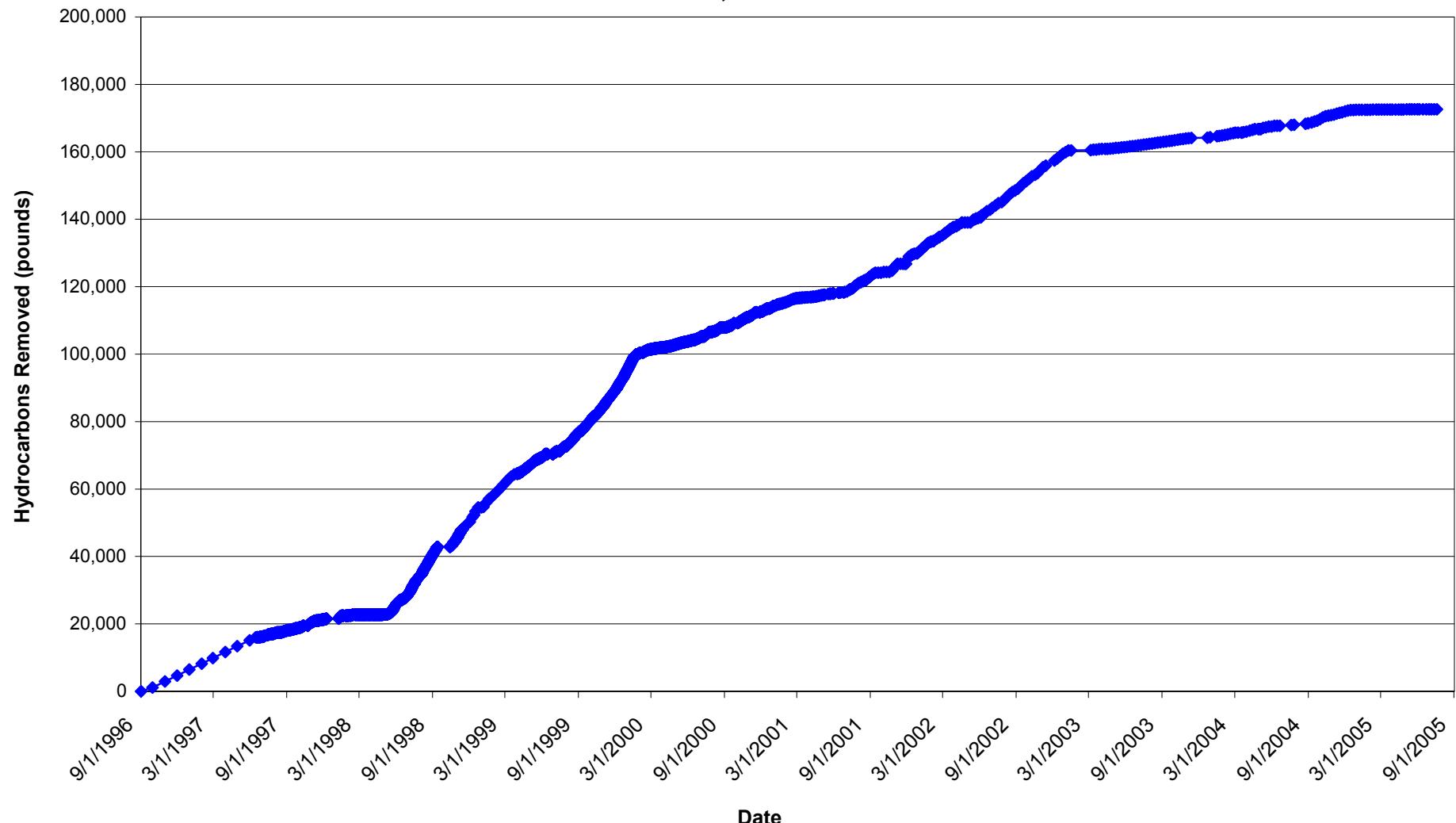
Proj. No.: 29868489	Date: AUGUST 2005
Project: NAVAL BASE VENTURA COUNTY NEX GAS STATION POINT MUGU, CALIFORNIA	CAD ID.:
Figure: 7	



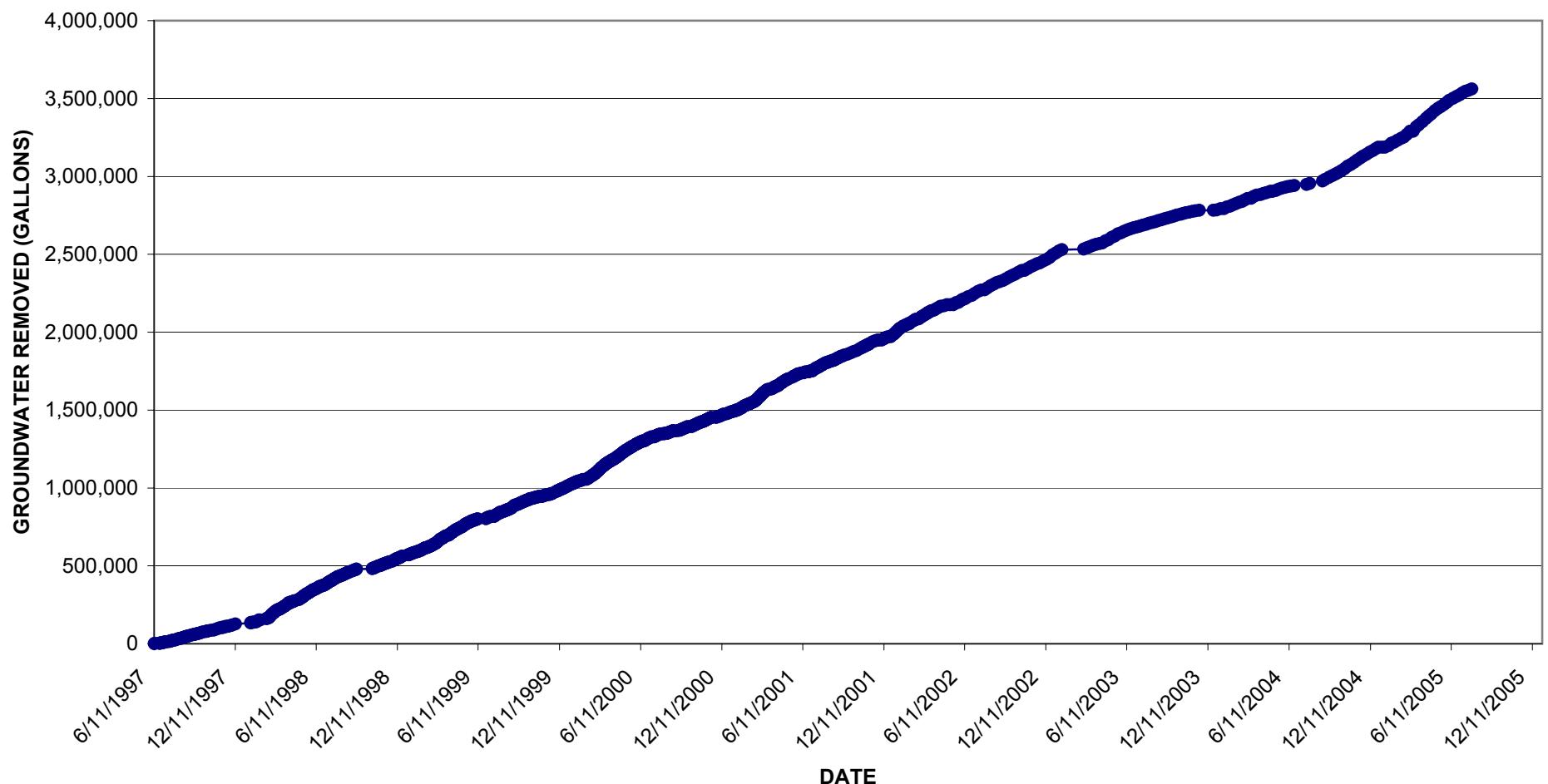
**FIGURE 10**

**TOTAL AMOUNT OF HYDROCARBONS REMOVED  
FROM THE VAPOR PHASE (CATALYTIC OXIDIZER)**

**NAVAL BASE VENTURA COUNTY  
NEX GAS STATION  
POINT MUGU, CALIFORNIA**



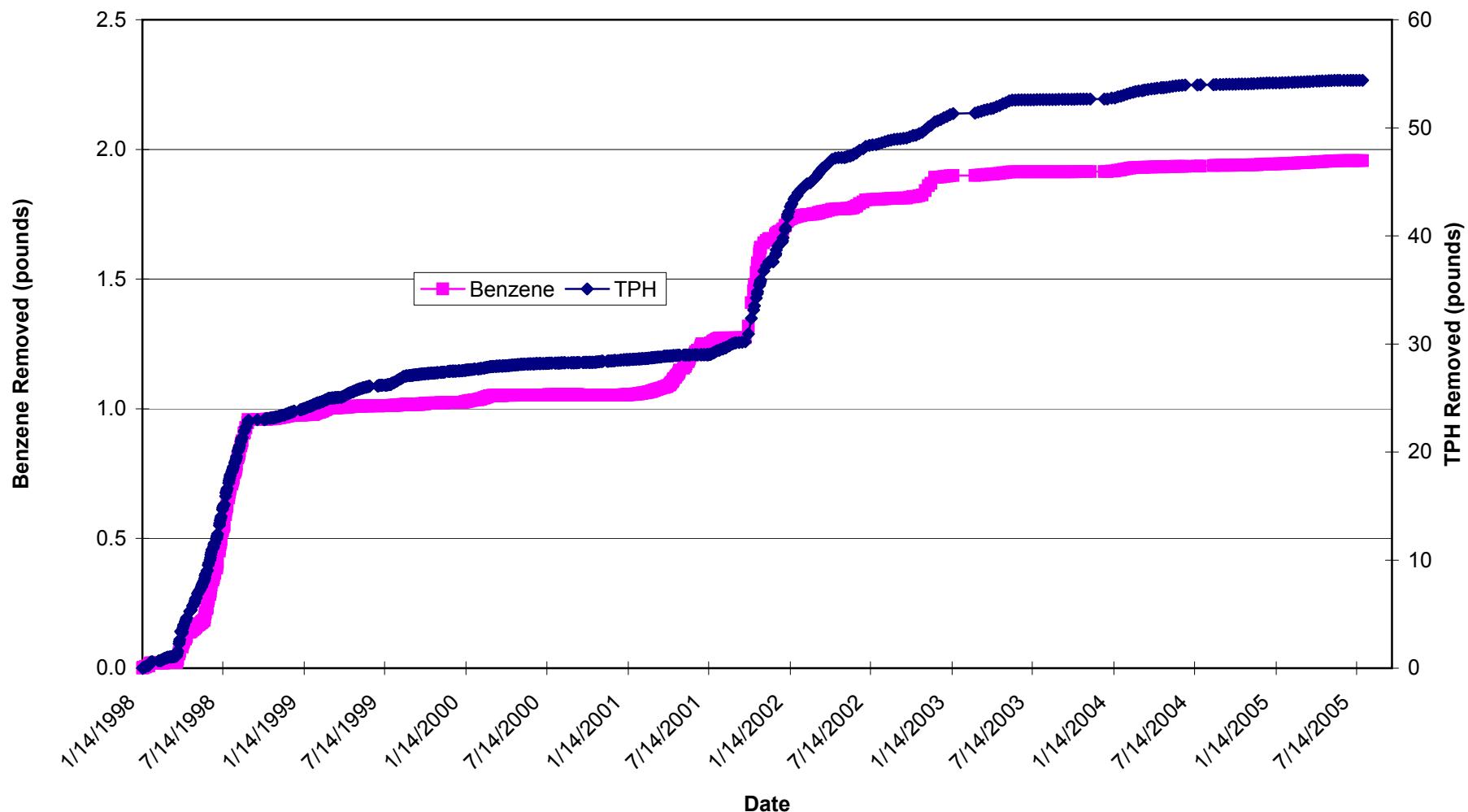
**FIGURE 11**  
**GALLONS OF GROUNDWATER REMOVED**  
**NAVAL BASE VENTURA COUNTY**  
**NEX GAS STATION**  
**POINT MUGU, CALIFORNIA**



**FIGURE 12**

**TOTAL AMOUNT OF BENZENE AND TPH REMOVED  
IN THE LIQUID PHASE (LIQUID RING PUMP)**

**NAVAL BASE VENTURA COUNTY  
NEX GAS STATION  
POINT MUGU, CALIFORNIA**



**APPENDIX A**

**HISTORICAL SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
 (Page 1 of 14)

Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
AS-1	--	11/01/88	--	--	NM	NA	6,800	NA	NA	NA	NA	--	--	--	--
AS-1	--	01/01/89	--	--	NM	15,000	ND	NA	NA	NA	NA	--	--	--	--
AS-1	--	04/26/96	--	--	5.29	22,000	14,000	400	2,000	2,100	NA	--	--	--	--
AS-1	--	07/09/96	--	--	4.31	31,000	19,000	600	2,400	2,100	NA	--	--	--	--
AS-1	--	11/06/96	--	--	3.35	22,000	21,000	250	2,400	2,100	NA	--	--	--	--
AS-1	--	02/12/97	--	--	6.41	10,000	2,700	86	460	610	NA	--	--	--	--
AS-1	--	05/19/97	--	--	4.64	5,300	800	27	75	120	NA	--	--	--	--
AS-1	--	09/04/97	--	--	NM	8,100	4,700	42	91	220	NA	--	--	--	--
AS-1	--	12/09/97	--	--	NM	8,100	2,700	13	44	990	NA	--	--	--	--
AS-1	--	03/12/98	--	--	NM	16,000	4,200	<5	29	42	NA	--	--	--	--
AS-1	--	06/02/98	--	--	NM	13,000	5,800	1	19	25	NA	--	--	--	--
AS-1	--	09/09/98	--	--	NM	11,000	6,500	12	5	24	NA	--	--	--	--
AS-1	--	12/21/98	--	--	NM	46,000	20,000	34	40	110	NA	--	--	--	--
AS-1	--	03/09/99	--	--	NM	14,000	3,200	32	<25	540	NA	--	--	--	--
AS-1	--	06/15/99	--	--	NM	8,200	2,500	2	1.5	58	380	--	--	--	--
AS-1	--	09/23/99	--	--	NM	10,000	3,000	<10	54	56	NA	--	--	--	--
AS-1	--	12/07/99	--	--	NM	5,600	1,800	25	63	100	NA	--	--	--	--
AS-1	--	03/14/00	--	--	NM	2,300	680	<2.5	12	18	130	--	--	--	--
AS-1	--	06/06/00	--	--	NM	26,000	10,000	32	470	450	<100	--	--	--	--
AS-1	--	12/07/00	--	--	2.40	24,000	9,600	17	300	390	780	--	--	--	--
GTI-3	--	11/06/96	7.66	8.44	0.78	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	02/12/97	4.41	8.44	4.03	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	05/19/97	6.08	8.44	2.36	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	09/04/97	7.24	8.44	1.20	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	12/09/97	5.93	8.44	2.51	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	03/12/98	3.52	8.44	4.92	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	06/02/98	5.08	8.44	3.36	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	09/09/98	6.27	8.44	2.17	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	12/21/98	6.34	8.44	2.10	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	03/09/99	5.85	8.44	2.59	ND	ND	ND	ND	ND	NA	--	--	--	--
GTI-3	--	03/14/00	5.05	8.44	3.39	ND	ND	ND	ND	ND	ND	--	--	--	--
GTI-3	--	03/14/01	2.75	8.44	5.69	ND	ND	ND	ND	ND	ND	--	--	--	--
GTI-3	--	03/14/02	7.85	8.44	0.59	<50	<0.5	<0.5	<0.5	<1.5	<5	--	--	--	--
GTI-3	--	12/17/02	6.11	8.44	2.33	<50	<0.50	<0.50	<0.50	<1.5	<2.0	--	--	--	--
GTI-3	--	04/01/03	3.61	8.44	4.83	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-3	--	06/03/03	4.79	8.44	3.65	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-3	--	08/29/03	6.27	8.44	2.17	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
GTI-3	--	02/17/04	5.91	8.44	2.53	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-3	--	08/19/04	6.94	8.44	1.50	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
GTI-3	--	02/10/05	3.40	8.44	5.04	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-3	4	08/03/05	5.15	8.44	3.29	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
GTI-6	--	12/17/02	--	10.82	NA	30	J	<0.50	<0.50	<0.50	<1.5	<2.0	--	--	--
GTI-6	--	04/01/03	5.64	10.82	5.18	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-6	--	06/03/03	6.38	10.82	4.44	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-6	--	08/29/03	6.87	10.82	3.95	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
GTI-6	--	02/17/04	5.56	10.82	5.26	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-6	--	08/19/04	6.5	10.82	4.32	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
GTI-6	--	02/10/05	3.3	10.82	7.52	NA	NA	NA	NA	NA	NA	--	--	--	--
GTI-6	4	08/02/05	4.98	10.82	5.84	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-2	--	11/01/88	--	9.99	NA	NA	23,000	NA	NA	NA	NA	--	--	--	--
MW-2	--	01/01/89	--	9.99	NA	14,000	2,200	NA	NA	NA	NA	--	--	--	--
MW-2	--	04/26/96	4.63	9.99	5.36	97,000	6,500	13,000	1,700	16,000	NA	--	--	--	--
MW-2	--	07/09/96	5.25	9.99	4.74	100,000	12,000	18,000	2,500	16,000	NA	--	--	--	--
MW-2	--	11/06/96	6.1	9.99	3.89	120,000	15,000	20,000	2,200	15,000	NA	--	--	--	--
MW-2	--	02/12/97	4.34	9.99	5.65	64,000	4,100	9,600	1,800	10,000	NA	--	--	--	--
MW-2	--	05/19/97	4.96	9.99	5.03	92,000	7,200	11,000	1,700	13,000	NA	--	--	--	--
MW-2	--	09/04/97	5.92	9.99	4.07	80,000	8,300	12,000	2,300	14,000	NA	--	--	--	--
MW-2	--	12/09/97	5.86	9.99	4.13	80,000	4,200	8,300	1,400	9,700	NA	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
(Page 2 of 14)

Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-2	--	03/12/98	5.59	9.99	4.40	50,000	6,700	4,800	330	4,000	NA	--	--	--	--
MW-2	--	06/02/98	4.94	9.99	5.05	71,000	7,500	6,400	1,300	9,200	NA	--	--	--	--
MW-2	--	09/09/98	6.57	9.99	3.42	80,000	7,500	6,800	1,400	13,000	NA	--	--	--	--
MW-2	--	12/21/98	8.26	9.99	1.73	39,000	3,300	970	380	5,000	NA	--	--	--	--
MW-2	--	03/09/99	6.73	9.99	3.26	20,000	2,700	780	<50	2,800	NA	--	--	--	--
MW-2	--	06/15/99	6.93	9.99	3.06	23,000	3,000	810	190	2,300	2,400	--	--	--	--
MW-2	--	09/23/99	8.72	9.99	1.27	35,000	9,500	1,200	540	2,200	NA	--	--	--	--
MW-2	--	12/08/99	9.55	9.99	0.44	7,900	2,400	50	95	250	NA	--	--	--	--
MW-2	--	03/14/00	8.81	9.99	1.18	9,900	3,100	110	210	520	1,300	--	--	--	--
MW-2	--	06/06/00	8.75	9.99	1.24	39,000	14,000	740	920	1,500	2,600	--	--	--	--
MW-2	--	09/13/00	9.15	9.99	0.84	41,000	13,000	370	250	1,900	2,700	--	--	--	--
MW-2	--	12/07/00	9.85	9.99	0.14	5,600	1,200	130	41	330	3,300	--	--	--	--
MW-2	--	03/14/01	6.15	9.99	3.84	740	5.6	0.8	ND	18	680	--	--	--	--
MW-2	--	06/17/01	7.55	9.99	2.44	7,300	65	0.8	0.9	4.3	9,800	--	--	--	--
MW-2	--	09/12/01	9.65	9.99	0.34	26,000	11,000	130.0	98.0	410.0	7,500	--	--	--	--
MW-2	--	12/13/01	8.45	9.99	1.54	27,000	8,200	380	720	1100	3,800	--	--	--	--
MW-2	--	03/14/02	4.95	9.99	5.04	28,000	17,000	1000	940	1200	3,100	--	--	--	--
MW-2	1	06/05/02	9.6	9.99	0.39	--	--	--	--	--	--	--	--	--	--
MW-2	1	09/12/02	9.6	9.99	0.39	--	--	--	--	--	--	--	--	--	--
MW-2	1	12/11/02	9.55	9.99	0.44	--	--	--	--	--	--	--	--	--	--
MW-2	--	04/01/03	7.56	9.99	2.43	200	2.0	<0.5	0.57	1.1	1.7	J	--	--	--
MW-2	--	06/03/03	5.89	9.99	4.10	490	2.1	<0.5	0.99	3.62	1.03	J	--	--	--
MW-2	--	08/29/03	6.49	9.99	3.50	25	J	<0.5	<0.5	<0.5	<1	1.9	J	--	--
MW-2	--	02/17/04	6.63	9.99	3.36	86	J	<0.5	<0.5	<0.5	<1	1.0	J	--	--
MW-2	--	08/19/04	6.97	9.99	3.02	<100	<0.5	<0.5	<0.5	<1	2.3	--	--	--	--
MW-2	--	02/10/05	4.55	9.99	5.44	<100	<0.5	<0.5	<0.5	<0.5	<2	--	--	--	--
MW-2	--	08/02/05	6.28	9.99	3.71	70	J	<0.5	<0.5	<1	0.43	J	<2	<2	<10
MW-4	--	11/01/88	--	9.02	NM	NA	56	NA	NA	NA	NA	--	--	--	--
MW-4	--	08/09/91	--	9.02	NM	197,000	10,600	NA	NA	NA	NA	--	--	--	--
MW-4	--	04/26/96	3.5	9.02	5.52	12,000	81	16	140	410	NA	--	--	--	--
MW-4	--	07/09/96	4.68	9.02	4.34	10,000	130	62	230	510	NA	--	--	--	--
MW-4	--	05/19/97	4.03	9.02	4.99	6,900	61	22	94	280	NA	--	--	--	--
MW-4	--	09/04/97	5.04	9.02	3.98	24,000	13	10	52	140	NA	--	--	--	--
MW-4	--	12/09/97	3.8	9.02	5.22	2,900	70	10	31	95	NA	--	--	--	--
MW-4	--	03/12/98	2.12	9.02	6.90	2,900	11	13	14	41	NA	--	--	--	--
MW-4	--	06/02/98	4.84	9.02	4.18	2,100	34	ND	17	33	NA	--	--	--	--
MW-4	--	09/09/98	5.31	9.02	3.71	24,000	59	8.9	27	41	NA	--	--	--	--
MW-4	--	12/21/98	5.49	9.02	3.53	2,600	150	18	35	36	NA	--	--	--	--
MW-4	--	03/09/99	4.91	9.02	4.11	6,400	190	17	61	63	NA	--	--	--	--
MW-4	--	06/15/99	4.78	9.02	4.24	3,000	130	11	33	32	27	--	--	--	--
MW-4	--	09/23/99	2.84	9.02	6.18	300	1.4	ND	0.9	3.2	NA	--	--	--	--
MW-4	--	12/07/99	4.96	9.02	4.06	1,700	5.4	ND	23	6.5	NA	--	--	--	--
MW-4	--	03/14/00	2.8	9.02	6.22	18	0.6	ND	ND	ND	ND	--	--	--	--
MW-4	--	06/06/00	4.51	9.02	4.51	840	5	ND	2.7	2.2	ND	--	--	--	--
MW-4	--	09/13/00	4.76	9.02	4.26	100	9.8	<0.5	2.8	2.7	<5.0	--	--	--	--
MW-4	--	03/14/01	1.46	9.02	7.56	78	ND	1.1	ND	ND	ND	--	--	--	--
MW-4	--	03/14/02	4.36	9.02	4.66	3,400	240	45	28	54	<10	F2	--	--	--
MW-4	--	12/17/02	5.75	9.02	3.27	2,900	180	3.2	4.9	4.2	J	<10	--	--	--
MW-4	--	04/01/03	4.34	9.02	4.68	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-4	--	06/03/03	5.37	9.02	3.65	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-4	--	08/29/03	5.5	9.02	3.52	14,000	600	92	19	380	1.4	J	--	--	--
MW-4	--	02/17/04	9.21	9.02	-0.19	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-4	--	08/19/04	7.61	9.02	1.41	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-4	--	02/10/05	3.01	9.02	6.01	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-4	4	08/03/05	5.92	9.02	3.10	120	2.3	<0.5	<0.5	<1	<2	<2	<2	<2	6.4 J
MW-4	3.4	08/03/05	5.92	9.02	3.10	140	0.78	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-6	--	01/01/89	--	8.77	NM	25,000	4,200	NA	NA	NA	NA	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
(Page 3 of 14)

Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-6	--	08/09/90	--	8.77	NM	570,000	22,600	NA	NA	NA	NA	--	--	--	--
MW-6	--	12/17/91	--	8.77	NM	248,000	2,540	NA	NA	NA	NA	--	--	--	--
MW-6	--	09/25/92	--	8.77	NM	189,000	4,610	NA	NA	NA	NA	--	--	--	--
MW-6	--	10/26/95	--	8.77	NM	28,000	2,500	NA	NA	NA	NA	--	--	--	--
MW-6	--	01/26/96	--	8.77	NM	42,000	2,300	NA	NA	NA	NA	--	--	--	--
MW-6	--	04/26/96	4.6	8.77	4.17	23,000	1,200	40	260	1,500	NA	--	--	--	--
MW-6	--	07/09/96	5.18	8.77	3.59	42,000	2,100	870	3,300	7,800	NA	--	--	--	--
MW-6	--	11/06/96	5.71	8.77	3.06	42,000	2,500	200	2,300	5,300	NA	--	--	--	--
MW-6	--	02/12/97	4.74	8.77	4.03	34,000	2,400	170	2,200	4,100	NA	--	--	--	--
MW-6	--	05/19/97	5.23	8.77	3.54	58,000	1,800	160	2,300	4,200	NA	--	--	--	--
MW-6	--	09/04/97	6.71	8.77	2.06	49,000	980	130	1,700	3,400	NA	--	--	--	--
MW-6	--	12/09/97	6.26	8.77	2.51	24,000	570	54	1,200	2,300	NA	--	--	--	--
MW-6	--	03/12/98	3.48	8.77	5.29	7,200	240	12	290	340	NA	--	--	--	--
MW-6	--	06/02/98	4.16	8.77	4.61	4,800	400	7.1	390	260	NA	--	--	--	--
MW-6	--	09/09/98	5.84	8.77	2.93	13,000	760	50	890	1,000	NA	--	--	--	--
MW-6	--	12/21/98	6.54	8.77	2.23	21,000	720	93	1,000	1,800	NA	--	--	--	--
MW-6	--	03/09/99	6.8	8.77	1.97	20,000	700	38	1,100	NA	NA	--	--	--	--
MW-6	--	06/15/99	6.04	8.77	2.73	56,000	750	120	1,400	2,400	<100	--	--	--	--
MW-6	--	09/23/99	6.77	8.77	2.00	29,000	520	59	1,100	2,300	NA	--	--	--	--
MW-6	--	12/07/99	7.18	8.77	1.59	22,000	550	35	1,200	2,200	NA	--	--	--	--
MW-6	--	03/14/00	5.68	8.77	3.09	6,200	91	6.9	290	390	<50	--	--	--	--
MW-6	--	06/06/00	6.13	8.77	2.64	4,500	210	11	380	210	40	--	--	--	--
MW-6	--	09/13/00	6.93	8.77	1.84	14,000	390	24	790	1,000	<100	--	--	--	--
MW-6	--	12/07/00	7.63	8.77	1.14	23,000	370	67	1,300	1,900	<50	--	--	--	--
MW-6	--	03/14/01	4.83	8.77	3.94	790	4.0	3.1	14	29	5	--	--	--	--
MW-6	--	06/17/01	6.03	8.77	2.74	2,700	39.0	6.2	150	64	24	--	--	--	--
MW-6	--	09/12/01	8.73	8.77	0.04	5,400	93.0	18	330	280	<10	--	--	--	--
MW-6	--	12/13/01	6.03	8.77	2.74	7,700	42	49	240	140	14	--	--	--	--
MW-6	--	03/14/02	6.28	8.77	2.49	3,300	C2A	39	23	210	56	<25	F2	--	--
MW-6	--	06/05/02	6.3	8.77	2.47	9,300	81	32	630	460	26	--	--	--	--
MW-6	--	09/12/02	7	8.77	1.77	7,500	25	2.8	530	360	22	--	--	--	--
MW-6	--	12/17/02	6.48	8.77	2.29	8,100	14	2.0	J	560	410	11	J	--	--
MW-6	--	04/01/03	4.1	8.77	4.67	2,900	1.2	<0.5	59	36.8	0.61	J	--	--	--
MW-6	--	06/03/03	4.12	8.77	4.65	5,700	1.5	<0.5	180	98.3	<2	--	--	--	--
MW-6	--	08/29/03	4.91	8.77	3.86	5,300	2.5	0.65	200	73.6	2.7	--	--	--	--
MW-6	--	02/17/04	7.01	8.77	1.76	9,600	5.5	1.4	370	195	14	--	--	--	--
MW-6	--	08/19/04	6.41	8.77	2.36	3,300	0.87	<0.5	110	24	8.5	--	--	--	--
MW-6	--	02/10/05	4.1	8.77	4.67	170	<0.5	<0.5	<0.5	<0.5	<2	--	--	--	--
MW-6	4	08/02/05	4.74	8.77	4.03	2,800	<0.5	0.63	43	6.09	4.2	<2	<2	<2	<10
MW-8	--	01/01/89	--	9.61	NM	8,000	850	NA	NA	NA	NA	--	--	--	--
MW-8	--	10/26/95	--	9.61	NM	4,000	190	NA	NA	NA	NA	--	--	--	--
MW-8	--	01/26/96	--	9.61	NM	5,000	1,300	NA	NA	NA	NA	--	--	--	--
MW-8	--	04/26/96	4.76	9.61	4.85	8,000	1,100	140	50	400	NA	--	--	--	--
MW-8	--	07/09/96	5.16	9.61	4.45	7,100	1,400	32	98	92	NA	--	--	--	--
MW-8	--	11/06/96	7.09	9.61	2.52	6,400	930	19	48	59	NA	--	--	--	--
MW-8	--	02/12/97	4.52	9.61	5.09	13,000	3,200	290	230	180	NA	--	--	--	--
MW-8	--	05/19/97	4.89	9.61	4.72	12,000	1,800	160	150	130	NA	--	--	--	--
MW-8	--	09/04/97	6.2	9.61	3.41	18,000	620	24	57	41	NA	--	--	--	--
MW-8	--	12/09/97	6.8	9.61	2.81	18,000	4,900	280	120	160	NA	--	--	--	--
MW-8	--	03/12/98	5.88	9.61	3.73	33,000	6,300	800	280	900	NA	--	--	--	--
MW-8	--	06/02/98	4.81	9.61	4.80	38,000	12,000	850	240	1,600	NA	--	--	--	--
MW-8	--	09/09/98	6.72	9.61	2.89	7,800	2,900	31	12	190	NA	--	--	--	--
MW-8	--	12/21/98	7.65	9.61	1.96	9,700	3,600	71	54	130	NA	--	--	--	--
MW-8	--	03/09/99	7.59	9.61	2.02	7,400	1,500	14	15	100	NA	--	--	--	--
MW-8	--	06/15/99	6.88	9.61	2.73	7,100	1,800	14	5	73	<100	--	--	--	--
MW-8	--	09/23/99	7.48	9.61	2.13	1,800	270	6	5.4	15	NA	--	--	--	--
MW-8	--	12/07/99	8.19	9.61	1.42	910	26	ND	2.3	10	NA	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-8	--	03/14/00	7.24	9.61	2.37	810	150	3	5	14	61	--	--	--	--
MW-8	--	06/06/00	6.99	9.61	2.62	540	49	<0.5	3.5	5.9	45	--	--	--	--
MW-8	--	09/13/00	7.59	9.61	2.02	150	1	2.2	<0.5	<1.0	26	--	--	--	--
MW-8	--	12/07/00	8.59	9.61	1.02	55	<0.5	0.9	0.6	<1.0	39	--	--	--	--
MW-8	--	03/14/01	6.59	9.61	3.02	<50	0.7	<0.5	<0.5	<1.0	<50.0	--	--	--	--
MW-8	--	06/17/01	6.49	9.61	3.12	<50	<0.5	<0.5	<0.5	<1.0	<50.0	--	--	--	--
MW-8	--	09/12/01	7.69	9.61	1.92	<50	<0.5	<0.5	<0.5	<1.0	<50.0	--	--	--	--
MW-8	--	12/13/01	7.24	9.61	2.37	46	1.7	0.7	0.6	1.4	11	--	--	--	--
MW-8	--	03/14/02	7.24	9.61	2.37	50 J/C2	0.5	<0.5	<0.5	<1.5	18	--	--	--	--
MW-8	--	06/05/02	6.5	9.61	3.11	40 J	<0.5	0.7	<0.5	<1.5	16	--	--	--	--
MW-8	--	09/12/02	7.5	9.61	2.11	40 J	<0.50	<0.50	<0.50	<1.5	14	--	--	--	--
MW-8	--	12/17/02	7.09	9.61	2.52	30 J	<0.50	<0.50	<0.50	<1.5	0.35 J	--	--	--	--
MW-8	--	04/01/03	4.11	9.61	5.50	<100	<0.5	<0.5	<0.5	<1	5.0	--	--	--	--
MW-8	--	06/03/03	4.54	9.61	5.07	<100	<0.5	<0.5	<0.5	<1	3.4 J <sup>10</sup>	--	--	--	--
MW-8	--	08/29/03	5.31	9.61	4.30	<100	<0.5	<0.5	<0.5	<1	2.3	--	--	--	--
MW-8	--	02/17/04	4.92	9.61	4.69	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-8	--	08/19/04	5.87	9.61	3.74	310	3.2	<0.5	1.2	<1	5.6	--	--	--	--
MW-8	--	02/10/05	3.12	9.61	6.49	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-8	4	08/03/05	4.9	9.61	4.71	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-9	--	01/01/89	--	8.96	NM	2,000	855	NA	NA	NA	NA	--	--	--	--
MW-9	--	04/26/96	3.49	8.96	5.47	3,400	3,100	30	350	40	NA	--	--	--	--
MW-9	--	07/09/96	4.42	8.96	4.54	3,100	2,600	30	340	60	NA	--	--	--	--
MW-9	--	03/12/98	4.78	8.96	4.18	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-9	--	06/02/98	4.65	8.96	4.31	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-9	--	03/14/00	7.17	8.96	1.79	270	5.4	<0.5	0.9	2.4	23	--	--	--	--
MW-9	--	06/06/00	6.87	8.96	2.09	1,100	29	3.5	160	19	29	--	--	--	--
MW-9	--	09/13/00	7.37	8.96	1.59	670	5	2.1	1.4	6.4	28	--	--	--	--
MW-9	--	12/07/00	8.22	8.96	0.74	85	<0.5	1.3	0.6	1.3	47	--	--	--	--
MW-9	--	03/14/01	5.47	8.96	3.49	<50	0.6	0.7	<0.5	1.7	<50.0	--	--	--	--
MW-9	--	06/17/01	6.07	8.96	2.89	<50	<0.5	<0.5	<0.5	<1.0	<50.0	--	--	--	--
MW-9	--	09/12/01	8.57	8.96	0.39	<50	3	0.6	<0.5	<1.0	12	--	--	--	--
MW-9	--	12/13/01	7.52	8.96	1.44	91	2.2	1.2	0.7	1.1	22	--	--	--	--
MW-9	--	03/14/02	9.26	8.96	-0.30	140 C2	1.2	1.4	<0.5	<1.5	14	--	--	--	--
MW-9	--	06/05/02	6.6	8.96	2.36	82	0.5	1.7	<0.5	0.8 J	13	--	--	--	--
MW-9	--	09/12/02	7.3	8.96	1.66	72	0.45 J	0.42 J	<0.50	<1.5	11	--	--	--	--
MW-9	--	12/17/02	7.06	8.96	1.90	30 J	<0.50	<0.50	<0.50	<1.5	0.32 J	--	--	--	--
MW-9	--	04/01/03	4.88	8.96	4.08	<100	<0.5	<0.5	<0.5	<1	1.61 J	--	--	--	--
MW-9	--	06/03/03	4.51	8.96	4.45	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-9	--	08/29/03	4.89	8.96	4.07	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-9	--	02/17/04	4.67	8.96	4.29	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-9	--	08/19/04	5.06	8.96	3.90	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-9	--	02/10/05	2.74	8.96	6.22	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-9	4	08/02/05	4.54	8.96	4.42	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-10	--	01/01/89	--	10.13	NM	13,000	380	NA	NA	NA	NA	--	--	--	--
MW-10	--	08/09/91	--	10.13	NM	13,000	300	NA	NA	NA	NA	--	--	--	--
MW-10	--	07/09/96	6.25	10.13	3.88	2,000	2.9	ND	6.1	5.4	NA	--	--	--	--
MW-10	--	11/06/96	7.49	10.13	2.64	3,900	ND	ND	ND	ND	NA	--	--	--	--
MW-10	--	02/12/97	6.36	10.13	3.77	3,800	ND	ND	12	5.1	NA	--	--	--	--
MW-10	--	05/19/97	5.85	10.13	4.28	3,300	4.9	ND	0.4	4.3	NA	--	--	--	--
MW-10	--	09/04/97	7.08	10.13	3.05	2,900	8.7	ND	0.7	ND	NA	--	--	--	--
MW-10	--	12/09/97	7.47	10.13	2.66	2,900	ND	13	12	6	NA	--	--	--	--
MW-10	--	03/12/98	3.92	10.13	6.21	3,100	0.8	24	9.7	3.5	NA	--	--	--	--
MW-10	--	06/02/98	4.4	10.13	5.73	1,000	ND	ND	ND	ND	NA	--	--	--	--
MW-10	--	09/09/98	6.12	10.13	4.01	3,300	ND	ND	ND	ND	NA	--	--	--	--
MW-10	--	12/21/98	7.12	10.13	3.01	2,600	ND	ND	3.4	2.6	NA	--	--	--	--
MW-10	--	03/09/99	6.64	10.13	3.49	4,200	ND	56	14	5.8	NA	--	--	--	--
MW-10	--	03/14/00	5.94	10.13	4.19	3,600	ND	ND	5.1	ND	--	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-10	--	06/06/00	5.84	10.13	4.29	400	ND	9.6	0.6	1.1	ND	--	--	--	--
MW-10	--	09/13/00	6.94	10.13	3.19	880	1	32	1.6	2	<5.0	--	--	--	--
MW-10	--	03/14/01	4.89	10.13	5.24	1,500	ND	62	1.3	ND	ND	--	--	--	--
MW-10	--	03/14/02	6.54	10.13	3.59	2,200	<0.5	73	1.2	2.2	<5	--	--	--	--
MW-10	--	12/12/02	7.29	10.13	2.84	4,200	<1.0	<1.0	<1.0	<3.0	<4.0	--	--	--	--
MW-10	--	04/01/03	7.5	10.13	2.63	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-10	--	06/03/03	5.51	10.13	4.62	1,900	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-10	--	08/29/03	6.3	10.13	3.83	3,800	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-10	--	02/17/04	6.79	10.13	3.34	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-10	--	08/19/04	7.1	10.13	3.03	1,800	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-10	--	02/10/05	5.1	10.13	5.03	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-10	4	08/04/05	5.55	10.13	4.58	3,800	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	640
MW-10	3,4	08/04/05	5.55	10.13	4.58	4,200	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	570
MW-12	--	11/01/88	--	8.34	NM	NA	9,000	NA	NA	NA	NA	--	--	--	--
MW-12	--	07/09/96	4.79	8.34	3.55	ND	ND	ND	6	ND	NA	--	--	--	--
MW-12	--	11/06/96	5.76	8.34	2.58	ND	1.1	ND	ND	ND	NA	--	--	--	--
MW-12	--	02/12/97	2.12	8.34	6.22	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-12	--	05/19/97	4.5	8.34	3.84	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-12	--	09/04/97	5.65	8.34	2.69	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-12	--	12/09/97	4.47	8.34	3.87	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-12	--	03/12/98	1.7	8.34	6.64	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-12	--	06/02/98	3.21	8.34	5.13	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-12	--	09/09/98	5.01	8.34	3.33	80	ND	0.8	1.2	3.3	NA	--	--	--	--
MW-12	--	12/21/98	5.17	8.34	3.17	79	ND	ND	ND	ND	NA	--	--	--	--
MW-12	--	03/09/99	4.67	8.34	3.67	400	ND	ND	1.3	1.8	NA	--	--	--	--
MW-12	--	09/22/99	6.21	8.34	2.13	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-12	--	12/07/99	0.8	8.34	7.54	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-12	--	03/14/00	1.31	8.34	7.03	ND	ND	ND	ND	ND	ND	--	--	--	--
MW-12	--	12/17/02	4.31	8.34	4.03	<50	<0.50	<0.50	<0.50	<1.5	0.62	J	--	--	--
MW-12	--	04/01/03	2.05	8.34	6.29	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-12	--	06/03/03	3.31	8.34	5.03	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-12	--	08/29/03	4.15	8.34	4.19	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-12	--	02/17/04	4.68	8.34	3.66	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-12	--	08/19/04	5.32	8.34	3.02	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-12	--	02/10/05	0.45	8.34	7.89	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-12	--	08/02/05	3.84	8.34	4.50	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-13	--	11/01/88	--	8.38	NM	NA	3,700	NA	NA	NA	NA	--	--	--	--
MW-13	--	07/09/96	4.47	8.38	3.91	36,000	3,300	760	2,500	2,200	NA	--	--	--	--
MW-13	--	11/06/96	5	8.38	3.38	33,000	3,400	890	2,900	2,800	NA	--	--	--	--
MW-13	--	02/12/97	2.6	8.38	5.78	33,000	3,900	1,500	2,800	2,500	NA	--	--	--	--
MW-13	--	05/19/97	3.91	8.38	4.47	37,000	4,100	880	2,800	1,800	NA	--	--	--	--
MW-13	--	09/04/97	5.09	8.38	3.29	130,000	6,100	1,400	5,600	3,900	NA	--	--	--	--
MW-13	--	12/09/97	4.49	8.38	3.89	49,000	6,000	1,100	3,000	4,100	NA	--	--	--	--
MW-13	--	03/12/98	2.21	8.38	6.17	340	27	2.7	15	17	NA	--	--	--	--
MW-13	--	06/02/98	3.44	8.38	4.94	33,000	4,100	430	2,400	2,100	NA	--	--	--	--
MW-13	--	09/09/98	4.65	8.38	3.73	29,000	3,900	370	2,300	1,800	NA	--	--	--	--
MW-13	--	12/21/98	5.06	8.38	3.32	32,000	3,300	350	2,500	1,600	NA	--	--	--	--
MW-13	--	03/09/99	4.45	8.38	3.93	28,000	2,200	200	2,200	870	NA	--	--	--	--
MW-13	--	06/15/99	4.52	8.38	3.86	41,000	4,400	410	2,300	2,000	<200	--	--	--	--
MW-13	--	09/23/99	5.42	8.38	2.96	31,000	3,600	240	1,800	880	NA	--	--	--	--
MW-13	--	12/07/99	5.5	8.38	2.88	27,000	2,900	600	2,500	1,500	NA	--	--	--	--
MW-13	--	03/14/00	2.7	8.38	5.68	23,000	2,800	300	2,200	1,400	<500	--	--	--	--
MW-13	--	06/06/00	1.1	8.38	7.28	29,000	4,600	310	2,600	2,000	<200	--	--	--	--
MW-13	--	09/13/00	5.5	8.38	2.88	21,000	2,400	170	1,800	480	<100	--	--	--	--
MW-13	--	12/07/00	6.15	8.38	2.23	26,000	2,400	210	2,700	950	<100	--	--	--	--
MW-13	--	03/14/01	2	8.38	6.38	23,000	2,700	260	1,900	610	<250	--	--	--	--
MW-13	--	06/17/01	4.2	8.38	4.18	14,000	1,500	120	1,200	250	<25	--	--	--	--
MW-13	--	09/12/01	5.45	8.38	2.93	20,000	2,500	140	1,700	330	<100	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-13	--	12/13/01	4.4	8.38	3.98	21,000	2,000	140	1,900	490	110	--	--	--	--
MW-13	--	03/14/02	3.85	8.38	4.53	26,000	3,400	170	2,300	1,100	<120	F2	--	--	--
MW-13	--	06/05/02	3.6	8.38	4.78	26,000	4,400	190	2,300	900	<100	F2	--	--	--
MW-13	--	09/12/02	4.25	8.38	4.13	17,000	1,300	68	1,600	210	<40	--	--	--	--
MW-13	--	12/12/02	4.3	8.38	4.08	14,000	1,600	68	1,100	240	<40	--	--	--	--
MW-13	--	04/01/03	2.35	8.38	6.03	13,000	1,500	48	920	140	<20	--	--	--	--
MW-13	--	06/03/03	3.27	8.38	5.11	18,000	2,200	50	1,200	220	<40	--	--	--	--
MW-13	--	08/29/03	4.2	8.38	4.18	16,000	770	35	750	197.1	<20	--	--	--	--
MW-13	--	02/17/04	4.45	8.38	3.93	11,000	1,500	40	580	135	<20	--	--	--	--
MW-13	--	08/19/04	4.91	8.38	3.47	7,000	540	16	310	35	5.5	J	--	--	--
MW-13	--	02/10/05	1.4	8.38	6.98	2,100	250	10	110	11	<8	--	--	--	--
MW-13	4	08/03/05	2.5	8.38	5.88	2,200	35	1.6	18	1.3	<2	<2	<2	<2	<10
MW-14	--	11/01/88	--	8.14	NM	NA	2	NA	NA	NA	--	--	--	--	--
MW-14	--	07/09/96	4.39	8.14	3.75	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	11/06/96	5.21	8.14	2.93	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	02/12/97	3.1	8.14	5.04	ND	0.6	ND	ND	ND	NA	--	--	--	--
MW-14	--	05/19/97	3.88	8.14	4.26	440	ND	1.6	0.7	ND	NA	--	--	--	--
MW-14	--	09/04/97	5.15	8.14	2.99	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	12/09/97	5.07	8.14	3.07	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	03/12/98	3.04	8.14	5.10	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	06/02/98	4.62	8.14	3.52	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	09/09/98	4.73	8.14	3.41	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	12/21/98	5.88	8.14	2.26	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	03/09/99	5.48	8.14	2.66	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-14	--	03/14/00	4.26	8.14	3.88	ND	ND	ND	ND	ND	ND	--	--	--	--
MW-14	--	12/17/02	4.11	8.14	4.03	<50	<0.50	<0.50	<0.50	<0.50	<1.5	<2.0	--	--	--
MW-14	--	04/01/03	2.25	8.14	5.89	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-14	--	06/03/03	2.75	8.14	5.39	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-14	--	08/29/03	3.61	8.14	4.53	<100	<0.5	<0.5	<0.5	<0.5	<1	<2	--	--	--
MW-14	--	02/17/04	3.01	8.14	5.13	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-14	--	08/19/04	3.62	8.14	4.52	<100	<0.5	<0.5	<0.5	<0.5	<1	<2	--	--	--
MW-14	--	02/10/05	1.3	8.14	6.84	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-14	--	08/02/05	2.82	8.14	5.32	<100	<0.5	<0.5	<0.5	<0.5	<1	<2	<2	<2	<10
MW-15	--	11/01/88	--	8.62	NM	NA	6	NA	NA	NA	NA	--	--	--	--
MW-15	--	01/01/89	--	8.62	NM	6,000	2,381	NA	NA	NA	NA	--	--	--	--
MW-15	--	08/09/90	--	8.62	NM	21,000	16	NA	NA	NA	NA	--	--	--	--
MW-15	--	08/09/91	--	8.62	NM	19,000	2,390	NA	NA	NA	NA	--	--	--	--
MW-15	--	12/17/91	--	8.62	NM	16,000	838	NA	NA	NA	NA	--	--	--	--
MW-15	--	09/25/92	--	8.62	NM	6,000	30	NA	NA	NA	NA	--	--	--	--
MW-15	--	10/26/95	--	8.62	NM	ND	6	NA	NA	NA	NA	--	--	--	--
MW-15	--	01/26/96	--	8.62	NM	ND	3	NA	NA	NA	NA	--	--	--	--
MW-15	--	04/26/96	3	8.62	5.62	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-15	--	07/09/96	4.58	8.62	4.04	1,000	8	ND	5.5	0.5	NA	--	--	--	--
MW-15	--	11/06/96	5.2	8.62	3.42	ND	3	ND	1.2	0.6	NA	--	--	--	--
MW-15	--	02/12/97	6.98	8.62	1.64	ND	ND	ND	ND	0.8	NA	--	--	--	--
MW-15	--	05/19/97	3.87	8.62	4.75	170	11	0.9	6.7	2.9	NA	--	--	--	--
MW-15	--	09/04/97	5.21	8.62	3.41	910	19	0.9	1.4	2.1	NA	--	--	--	--
MW-15	--	12/09/97	4.56	8.62	4.06	910	220	6.3	26	8.7	NA	--	--	--	--
MW-15	--	03/12/98	1.55	8.62	7.07	350	6	ND	1.3	4.6	NA	--	--	--	--
MW-15	--	06/02/98	2.96	8.62	5.66	210	ND	ND	ND	ND	NA	--	--	--	--
MW-15	--	09/09/98	4.45	8.62	4.17	100	0.8	2.5	1.2	4.6	NA	--	--	--	--
MW-15	--	12/21/98	4.68	8.62	3.94	64	ND	ND	ND	NA	--	--	--	--	--
MW-15	--	03/09/99	4.06	8.62	4.56	77	ND	ND	ND	NA	--	--	--	--	--
MW-15	--	03/14/00	1.97	8.62	6.65	78	ND	ND	0.9	ND	ND	--	--	--	--
MW-15	--	06/06/00	3.62	8.62	5.00	85	ND	2.1	ND	ND	--	--	--	--	--
MW-15	--	09/13/00	4.87	8.62	3.75	<50	<0.5	0.6	0.7	<1.0	<5.0	--	--	--	--
MW-15	--	03/14/01	1.57	8.62	7.05	ND	ND	2.2	4.6	ND	ND	--	--	--	--
MW-15	--	03/14/02	3.77	8.62	4.85	120	1.3	<0.5	1.3	0.6	J	<5.0	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-15	--	12/17/02	4.44	8.62	4.18	54	6.4	<0.50	<0.50	<1.5	0.57	J	--	--	--
MW-15	--	04/01/03	2.61	8.62	6.01	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-15	--	06/03/03	3.51	8.62	5.11	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-15	--	08/29/03	5.53	8.62	3.09	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-15	--	02/17/04	4.58	8.62	4.04	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-15	--	08/19/04	5.45	8.62	3.17	160	11	0.52	<0.5	<1	1.1	J	--	--	--
MW-15	--	02/10/05	1.82	8.62	6.80	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-15	4	08/03/05	3.79	8.62	4.83	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	9.5
MW-16	--	01/01/89	--	8.36	NM	NA	ND	NA	NA	NA	NA	NA	--	--	--
MW-16	--	08/09/91	--	8.36	NM	ND	ND	NA	NA	NA	NA	NA	--	--	--
MW-16	--	07/09/96	5.03	8.36	3.33	ND	ND	ND	ND	NA	NA	NA	--	--	--
MW-16	--	06/02/98	2.95	8.36	5.41	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-16	--	09/09/98	5	8.36	3.36	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-16	--	12/11/02	4.65	8.36	3.71	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-16	--	04/01/03	2.19	8.36	6.17	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-16	--	06/03/03	3.28	8.36	5.08	NA	NA	NA	NA	NA	NA	NA	--	--	--
MW-17	--	11/01/88	--	9.41	NM	NA	21,000	NA	NA	NA	NA	NA	--	--	--
MW-17	--	01/01/89	--	9.41	NM	6,000	2,500	NA	NA	NA	NA	NA	--	--	--
MW-17	--	04/26/96	5.27	9.41	4.14	44,000	12,000	4,000	1,300	10,000	NA	NA	--	--	--
MW-17	--	07/09/96	6.11	9.41	3.30	51,000 <sup>7</sup>	10,000	3,300	1,000	7,900	NA	--	--	--	--
MW-17	--	11/06/96	6.48	9.41	2.93	44,000	11,000	2,800	1,400	8,300	NA	--	--	--	--
MW-17	--	02/12/97	4.65	9.41	4.76	58,000	9,600	4,500	1,500	11,000	NA	--	--	--	--
MW-17	--	05/19/97	5.91	9.41	3.50	70,000	9,800	3,500	1,300	8,800	NA	--	--	--	--
MW-17	--	09/04/97	7.21	9.41	2.20	66,000	8,200	1,900	1,300	9,200	NA	--	--	--	--
MW-17	--	12/09/97	6.3	9.41	3.11	66,000	8,400	1,600	1,600	9,800	NA	--	--	--	--
MW-17	--	03/12/98	4.12	9.41	5.29	60,000	5,200	1,200	850	6,700	NA	--	--	--	--
MW-17	--	06/02/98	4.86	9.41	4.55	54,000	5,800	1,400	1,100	10,000	NA	--	--	--	--
MW-17	--	09/09/98	6.84	9.41	2.57	54,000	8,500	570	1,100	10,000	NA	--	--	--	--
MW-17	--	12/21/98	7.14	9.41	2.27	21,000	2,100	100	490	2,700	NA	--	--	--	--
MW-17	--	03/09/99	6.89	9.41	2.52	30,000	3,300	190	710	4,300	NA	--	--	--	--
MW-17	--	06/15/99	6.18	9.41	3.23	26,000	3,300	340	170	2,800	<200	--	--	--	--
MW-17	--	09/23/99	7.95	9.41	1.46	22,000	2,900	120	590	1,600	NA	--	--	--	--
MW-17	--	12/07/99	7.85	9.41	1.56	18,000	2,900	110	680	1,200	NA	--	--	--	--
MW-17	--	03/14/00	8.4	9.41	1.01	27,000	6,000	340	1,300	3,700	<250	--	--	--	--
MW-17	--	06/06/00	8.1	9.41	1.31	35,000	10,000	860	1,200	4,200	<500	--	--	--	--
MW-17	--	09/13/00	6.2	9.41	3.21	17,000	2,900	33	450	710	<100	--	--	--	--
MW-17	--	12/07/00	8.95	9.41	0.46	15,000	3,200	27	780	570	<50	--	--	--	--
MW-17	--	03/14/01	6.25	9.41	3.16	120	<0.5	<0.5	<0.5	<1.0	170	--	--	--	--
MW-17	--	06/17/01	8.4	9.41	1.01	5,400	2,400	22	9.5	420	<5.0	--	--	--	--
MW-17	--	09/12/01	9.61	9.41	-0.20	2,000	200	8.2	<1	23	<10	--	--	--	--
MW-17	--	12/13/01	8.65	9.41	0.76	4,900	1,600	12	190	94	17	--	--	--	--
MW-17	--	03/14/02	7.95	9.41	1.46	3,700	C2 1,000	<5 F2	3.4 J	45	21 J	--	--	--	--
MW-17	--	06/05/02	8.75	9.41	0.66	3,500	900	10	57	79	7	--	--	--	--
MW-17	--	09/12/02	8.95	9.41	0.46	2,500	250	1.2 J	4.0	21	2.7 J	--	--	--	--
MW-17	--	12/12/02	8.31	9.41	1.10	5,600	710	2.9	190	120	5.6 J	--	--	--	--
MW-17	--	04/01/03	5.02	9.41	4.39	57 J	8.2	<0.5	<0.5	2.28	<2	--	--	--	--
MW-17	--	06/03/03	5.11	9.41	4.30	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-17	--	08/29/03	6.27	9.41	3.14	21 J	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-17	--	02/17/04	5.94	9.41	3.47	76 J	2.1	<0.5	0.58	<1	<2	--	--	--	--
MW-17	--	08/19/04	6.71	9.41	2.70	120	3.0	<0.5	2.1	<1	<2	--	--	--	--
MW-17	--	02/10/05	4.55	9.41	4.86	81 J	<0.5	<0.5	<0.5	<0.5	<2	--	--	--	--
MW-17	4	08/04/05	5.48	9.41	3.93	120	1.3	<0.5	0.41 J	<1	<2	<2	<2	<2	<10
MW-18	--	11/01/88	--	9.23	NM	NA	10	NA	NA	NA	NA	NA	--	--	--
MW-18	--	01/01/89	--	9.23	NM	ND	ND	NA	NA	NA	NA	NA	--	--	--
MW-18	--	04/26/96	5.57	9.23	3.66	ND	ND	ND	ND	ND	ND	ND	--	--	--
MW-18	--	07/09/96	6.24	9.23	2.99	ND	ND	ND	ND	ND	ND	ND	--	--	--
MW-18	--	11/06/96	7.34	9.23	1.89	ND	ND	ND	ND	ND	ND	ND	--	--	--
MW-18	--	02/12/97	4.85	9.23	4.38	ND	ND	ND	ND	ND	ND	NA	--	--	--

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**Historical Summary of Groundwater Monitoring Results**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-18	--	05/19/97	6.56	9.23	2.67	ND	NA	NA	NA	NA	NA	--	--	--	--
MW-18	--	09/04/97	7.67	9.23	1.56	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-18	--	12/09/97	6.81	9.23	2.42	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-18	--	03/12/98	3.99	9.23	5.24	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-18	--	06/02/98	8.28	9.23	0.95	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-18	--	09/09/98	6.83	9.23	2.40	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-18	--	12/21/98	7.18	9.23	2.05	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-18	--	03/09/99	6.86	9.23	2.37	ND	ND	ND	ND	ND	NA	--	--	--	--
MW-18	--	03/14/00	5.43	9.23	3.80	ND	ND	ND	ND	ND	ND	--	--	--	--
MW-18	--	12/11/02	6.91	9.23	2.32	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-18	--	04/01/03	4.89	9.23	4.34	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-18	--	06/03/03	5.31	9.23	3.92	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-18	--	08/29/03	6.18	9.23	3.05	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-18	--	02/17/04	6.01	9.23	3.22	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-18	--	08/19/04	6.55	9.23	2.68	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-18	--	02/10/05	4.07	9.23	5.16	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-18	--	08/04/04	5.01	9.23	4.22	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-20	--	01/01/89	--	9.26	NM	18,000	3,800	NA	NA	NA	NA	--	--	--	--
MW-20	--	04/26/96	5.97	9.26	3.29	57,000	14,000	6,300	2,100	10,000	NA	--	--	--	--
MW-20	--	07/09/96	6.33	9.26	2.93	31,000	13,000	1,700	1,200	2,500	NA	--	--	--	--
MW-20	--	11/06/96	6.43	9.26	2.83	20,000	10,000	1,300	1,000	2,200	NA	--	--	--	--
MW-20	--	02/12/97	7.08	9.26	2.18	32,000	8,200	1,000	1,400	2,700	NA	--	--	--	--
MW-20	--	05/19/97	6.48	9.26	2.78	22,000	1,400	96	360	1,900	NA	--	--	--	--
MW-20	--	09/04/97	8.93	9.26	0.33	200	12	30	ND	58	NA	--	--	--	--
MW-20	--	12/09/97	8.04	9.26	1.22	200	1.5	0.5	1.2	1.6	NA	--	--	--	--
MW-20	--	03/12/98	4.93	9.26	4.33	<50	<0.5	<0.5	<0.5	<1.0	NA	--	--	--	--
MW-20	--	06/02/98	5.52	9.26	3.74	<50	<0.5	<0.5	<0.5	<1.0	NA	--	--	--	--
MW-20	--	09/09/98	7.15	9.26	2.11	350	3.5	1.3	1.9	8.2	NA	--	--	--	--
MW-20	--	12/21/98	8	9.26	1.26	510	4.2	<0.5	<0.5	1.4	NA	--	--	--	--
MW-20	--	03/09/99	8.3	9.26	0.96	470	<0.5	1.1	1.1	<1.0	NA	--	--	--	--
MW-20	--	06/15/99	6.97	9.26	2.29	230	<0.5	0.9	1.5	2.3	30	--	--	--	--
MW-20	--	09/23/99	8.21	9.26	1.05	440	<0.5	1.4	1.3	1.4	NA	--	--	--	--
MW-20	--	12/07/99	8.61	9.26	0.65	250	<0.5	<0.5	0.08	1.2	NA	--	--	--	--
MW-20	--	03/14/00	7	9.26	2.26	55	<0.5	<0.5	<0.5	<1.0	21	--	--	--	--
MW-20	--	06/06/00	8.45	9.26	0.81	270	1	<0.5	<0.5	1.9	88	--	--	--	--
MW-20	--	09/13/00	8.75	9.26	0.51	140	<0.5	2.5	0.8	<1.0	140	--	--	--	--
MW-20	--	12/07/00	9.46	9.26	-0.20	640	2	15	1.1	2.4	320	--	--	--	--
MW-20	--	03/14/01	5.75	9.26	3.51	<50	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--
MW-20	--	06/17/01	7.66	9.26	1.60	170	0.6	4.6	<0.5	<1.0	31	--	--	--	--
MW-20	--	09/12/01	9.25	9.26	0.01	540	0.6	14.0	<0.5	<1.0	380	--	--	--	--
MW-20	--	12/13/01	7.95	9.26	1.31	300	0.7	7.4	0.6	1.7	190	--	--	--	--
MW-20	--	03/14/02	8.35	9.26	0.91	370	0.4	J	13	0.8	0.6	J	240	--	--
MW-20	--	06/05/02	8.15	9.26	1.11	470	0.5	J	15	0.4	J	0.6	J	190	--
MW-20	--	09/12/02	8.4	9.26	0.86	440	<0.50	<0.50	<0.50	<1.5	220	--	--	--	--
MW-20	--	12/12/02	8.17	9.26	1.09	130	1.8	<1.0	0.36	J	<3.0	76	--	--	--
MW-20	--	04/01/03	5.11	9.26	4.15	<100	<0.5	<0.5	<0.5	<1	10	--	--	--	--
MW-20	--	06/03/03	5.11	9.26	4.15	<100	<0.5	<0.5	<0.5	<1	14	--	--	--	--
MW-20	--	08/29/03	5.95	9.26	3.31	<100	<0.5	<0.5	<0.5	<1	9.1	--	--	--	--
MW-20	--	02/17/04	6.08	9.26	3.18	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-20	--	08/19/04	6.76	9.26	2.50	<100	<0.5	<0.5	<0.5	<1	8.9	--	--	--	--
MW-20	--	02/10/05	4.91	9.26	4.35	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-20	4	08/02/05	6.43	9.26	2.83	110	<0.5	<0.5	<0.5	1.1	7.3	<2	<2	<2	<10
MW-21	--	01/01/89	--	8.38	NM	10,000	NA	NA	NA	NA	NA	--	--	--	--
MW-21	--	04/26/96	5.63	8.38	2.75	310,000	10,000	7,200	6,100	31,000	NA	--	--	--	--
MW-21	--	07/09/96	5.95	8.38	2.43	70,000	8,800	4,800	2,100	6,900	NA	--	--	--	--
MW-21	--	11/06/96	5.97	8.38	2.41	51,000	5,800	2,800	1,300	3,400	NA	--	--	--	--
MW-21	--	02/12/97	6.99	8.38	1.39	49,000	5,700	1,800	1,600	3,100	NA	--	--	--	--
MW-21	--	05/19/97	5.96	8.38	2.42	46,000	4,300	420	1,600	3,400	NA	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-21	--	09/04/97	8.08	8.38	0.30	13,000	780	120	750	460	NA	--	--	--	--
MW-21	--	12/09/97	6.68	8.38	1.70	13,000	1,100	160	9	440	NA	--	--	--	--
MW-21	--	03/12/98	5.06	8.38	3.32	1,200	1.8	3.2	2.5	3	NA	--	--	--	--
MW-21	--	06/02/98	5.82	8.38	2.56	940	2.9	<0.5	1.8	2.9	NA	--	--	--	--
MW-21	--	09/09/98	5.81	8.38	2.57	9,800	560	36	660	630	NA	--	--	--	--
MW-21	--	12/21/98	7.66	8.38	0.72	16,000	2,500	490	560	1,100	NA	--	--	--	--
MW-21	--	03/09/99	6.94	8.38	1.44	24,000	4,500	1,100	410	1,800	NA	--	--	--	--
MW-21	--	06/15/99	5.6	8.38	2.78	26,000	4,200	1,200	870	1,700	<200	--	--	--	--
MW-21	--	09/23/99	7.69	8.38	0.69	3,200	99	<1	30	24	NA	--	--	--	--
MW-21	--	12/07/99	7.85	8.38	0.53	6,000	25	<5	50	21	NA	--	--	--	--
MW-21	--	03/14/00	6.8	8.38	1.58	3,800	1,300	41	130	89	77	--	--	--	--
MW-21	--	06/06/00	7.6	8.38	0.78	2,000	270	<1	3.5	15	98	--	--	--	--
MW-21	--	09/13/00	7.5	8.38	0.88	2,500	4.8	<0.5	<0.5	5.4	73	--	--	--	--
MW-21	--	12/07/00	8.68	8.38	-0.30	3,500	8.9	32	10	4	140	--	--	--	--
MW-21	--	03/14/01	6	8.38	2.38	500	87	4.6	6.0	5.6	16	--	--	--	--
MW-21	--	06/17/01	7.5	8.38	0.88	950	48	15	1	1.7	46	--	--	--	--
MW-21	--	09/12/01	8.88	8.38	-0.50	6,900	9.4	130	3.1	5.6	31	--	--	--	--
MW-21	--	12/13/01	7.5	8.38	0.88	3,000	8.2	67	1.6	3.0	57	--	--	--	--
MW-21	--	03/14/02	8.25	8.38	0.13	2,100	<0.5	19	<0.5	1.0	J	50	--	--	--
MW-21	--	06/05/02	7.7	8.38	0.68	3,300	<0.5	68	<0.5	1.9	60	E	--	--	--
MW-21	--	09/12/02	7.8	8.38	0.58	1,300	<0.50	<0.50	<0.50	<1.5	28	--	--	--	--
MW-21	--	12/12/02	7.5	8.38	0.88	710	1.3	<1.0	<1.0	<3.0	37	--	--	--	--
MW-21	--	04/01/03	4.56	8.38	3.82	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-21	--	06/03/03	4.81	8.38	3.57	75	J	<0.5	<0.5	<1	8.1	--	--	--	--
MW-21	--	08/29/03	5.39	8.38	2.99	29	J	<0.5	<0.5	<1	12	--	--	--	--
MW-21	--	02/17/04	5.31	8.38	3.07	130	<0.5	<0.5	<0.5	<1	5.6	--	--	--	--
MW-21	--	08/19/04	6.47	8.38	1.91	100	<0.5	<0.5	<0.5	<1	7.7	--	--	--	--
MW-21	--	02/10/05	4.95	8.38	3.43	53	J	<0.5	<0.5	<0.5	<2	--	--	--	--
MW-21	4	08/02/05	5.21	8.38	3.17	330	29	1.4	0.77	2.48	31	<2	2.5	<2	12
MW-22	--	11/01/88	--	8.84	NM	NA	7,700	NA	NA	NA	NA	--	--	--	--
MW-22	--	01/01/89	--	8.84	NM	1,000	414	NA	NA	NA	NA	--	--	--	--
MW-22	--	08/09/90	--	8.84	NM	456,000	8,600	NA	NA	NA	NA	--	--	--	--
MW-22	--	12/17/91	--	8.84	NM	223,000	13,893	NA	NA	NA	NA	--	--	--	--
MW-22	--	09/25/92	--	8.84	NM	200,000	15,700	NA	NA	NA	NA	--	--	--	--
MW-22	--	10/26/95	--	8.84	NM	69,000	5,800	NA	NA	NA	NA	--	--	--	--
MW-22	--	01/26/96	--	8.84	NM	19,000	1,100	NA	NA	NA	NA	--	--	--	--
MW-22	--	04/26/96	3.84	8.84	5.00	6,000	230	180	ND	1,400	NA	--	--	--	--
MW-22	--	07/09/96	4.41	8.84	4.43	19,000	860	1,100	460	3,700	NA	--	--	--	--
MW-22	--	11/06/96	4.65	8.84	4.19	31,000	2,700	1,900	570	6,400	NA	--	--	--	--
MW-22	--	02/12/97	4.04	8.84	4.80	51,000	5,800	4,800	800	9,300	NA	--	--	--	--
MW-22	--	05/19/97	4.37	8.84	4.47	59,000	6,100	5,000	700	9,900	NA	--	--	--	--
MW-22	--	09/04/97	5.66	8.84	3.18	7,400	3,800	3,500	830	76	NA	--	--	--	--
MW-22	--	12/09/97	4.83	8.84	4.01	3,100	340	250	35	510	NA	--	--	--	--
MW-22	--	03/12/98	3.85	8.84	4.99	23,000	1,400	730	61	2,300	NA	--	--	--	--
MW-22	--	06/02/98	4.33	8.84	4.51	57,000	7,600	7,100	440	7,600	NA	--	--	--	--
MW-22	--	09/09/98	6.11	8.84	2.73	49,000	5,300	2,800	820	8,100	NA	--	--	--	--
MW-22	--	12/21/98	6.84	8.84	2.00	48,000	5,400	3,100	650	7,200	NA	--	--	--	--
MW-22	--	03/09/99	7.07	8.84	1.77	49,000	4,900	2,200	650	8,300	NA	--	--	--	--
MW-22	--	06/15/99	6.03	8.84	2.81	66,000	5,100	3,400	800	8,800	<200	--	--	--	--
MW-22	--	09/23/99	6.85	8.84	1.99	67,000	6,600	2,700	740	11,000	NA	--	--	--	--
MW-22	--	12/07/99	7.43	8.84	1.41	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-22	--	03/14/00	5.33	8.84	3.51	35,000	2,900	2,700	620	6,000	<500	--	--	--	--
MW-22	--	06/06/00	6.33	8.84	2.51	63,000	8,900	4,500	1,300	11,000	<500	--	--	--	--
MW-22	--	09/13/00	3.63	8.84	5.21	65,000	8,500	1,800	1,300	10,000	<500	--	--	--	--
MW-22	1	12/07/00	--	8.84	--	--	--	--	--	--	--	--	--	--	--
MW-22	--	03/14/01	4.33	8.84	4.51	49,000	4,400	3,800	840	9,700	<100	--	--	--	--
MW-22	--	06/17/01	5.63	8.84	3.21	62,000	13,000	3,300	1,200	12,000	<250	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-22	--	09/12/01	7.03	8.84	1.81	67,000	15,000	400	1,400	11,000	<500	--	--	--	--
MW-22	--	12/13/01	6.03	8.84	2.81	27,000	1,700	330	270	4,900	<250	--	--	--	--
MW-22	1	03/14/02	--	8.84	--	--	--	--	--	--	--	--	--	--	--
MW-22	1	12/11/02	--	8.84	--	--	--	--	--	--	--	--	--	--	--
MW-22	--	04/01/03	4.85	8.84	3.99	7,800 J	8,000	400	260	650	<200	--	--	--	--
MW-22	--	06/03/03	5.57	8.84	3.27	33,000	13,000	2,500	<100	5,800	176 J	--	--	--	--
MW-23	--	11/01/88	--	9.50	NM	7,000	8,800	NA	NA	NA	NA	--	--	--	--
MW-23	--	01/01/89	--	9.50	NM	NA	2,830	NA	NA	NA	NA	--	--	--	--
MW-23	--	04/26/96	--	9.50	NM	6,900	1,600	30	0	30	NA	--	--	--	--
MW-23	--	07/09/96	4.43	9.50	5.07	8,000	1,800	40	40	40	NA	--	--	--	--
MW-23	--	09/04/97	6.38	9.50	3.12	59,000	NA	NA	NA	NA	NA	--	--	--	--
MW-23	--	12/09/97	--	9.50	NM	8,900	720	35	100	100	NA	--	--	--	--
MW-23	--	03/12/98	--	9.50	NM	6,600	55	6.3	30	15	NA	--	--	--	--
MW-23	--	06/02/98	--	9.50	NM	300	1	ND	0.8	ND	NA	--	--	--	--
MW-23	--	09/09/98	6.86	9.50	2.64	980	12	ND	4.7	7	NA	--	--	--	--
MW-23	--	12/21/98	--	9.50	NM	160	0.6	ND	ND	ND	NA	--	--	--	--
MW-23	--	03/09/99	--	9.50	NM	90	ND	ND	ND	ND	NA	--	--	--	--
MW-23	--	06/15/99	--	9.50	NM	160	16	ND	ND	1.3	ND	--	--	--	--
MW-23	--	09/23/99	--	9.50	NM	110	ND	ND	ND	ND	NA	--	--	--	--
MW-23	--	12/07/99	--	9.50	NM	150	ND	ND	ND	ND	NA	--	--	--	--
MW-23	--	03/14/00	--	9.50	NM	ND	ND	ND	ND	ND	ND	--	--	--	--
MW-23	--	06/06/00	7.74	9.50	1.76	99	3.6	2.3	ND	1.7	83	--	--	--	--
MW-23	--	09/13/00	7.64	9.50	1.86	230	17	1.7	0.6	3.5	12	--	--	--	--
MW-23	--	12/07/00	8.74	9.50	0.76	190	2.5	7.3	1.7	8.1	6	--	--	--	--
MW-23	--	03/14/01	4.84	9.50	4.66	ND	ND	<0.5	<0.5	<1.0	<5.0	--	--	--	--
MW-23	--	06/17/01	7.84	9.50	1.66	<50	<0.5	1.1	<0.5	<1.0	<5.0	--	--	--	--
MW-23	--	09/12/01	9.49	9.50	0.01	93	<0.5	3.3	<0.5	<1.0	9	--	--	--	--
MW-23	--	12/13/01	6.34	9.50	3.16	37	0.6	ND	ND	0.9	ND	--	--	--	--
MW-23	--	03/14/02	7.69	9.50	1.81	50 J	0.5 J	<0.5	0.8	0.7 J	<5.0	--	--	--	--
MW-23	--	06/05/02	8.1	9.50	1.40	78	0.5 J	3.1	0.5	0.8 J	<5.0	--	--	--	--
MW-23	--	09/12/02	9.3	9.50	0.20	79	0.38 J	0.25 J	<0.50	<1.5	1.5 J	--	--	--	--
MW-23	--	12/17/02	8.56	9.50	0.94	<50	<0.50	<0.50	<0.50	<1.5	<2.0	--	--	--	--
MW-23	--	04/01/03	4.51	9.50	4.99	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-23	--	06/03/03	5.52	9.50	3.98	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-23	--	08/29/03	6.41	9.50	3.09	<100	<0.5	<0.5	<0.5	<1	0.75 J	--	--	--	--
MW-23	--	02/17/04	6.27	9.50	3.23	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-23	--	08/19/04	8.37	9.50	1.13	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-23	--	02/10/05	3.76	9.50	5.74	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-23	--	08/02/05	6.25	9.50	3.25	50 J	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-23	3	08/02/05	6.25	9.50	3.25	50 J	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-23X	--	07/09/96	4.84	9.91	5.07	NA	NA	130	1,200	130	NA	--	--	--	--
MW-23X	--	11/06/96	--	9.91	NM	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-23X	--	09/04/97	7.27	9.91	2.64	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-23X	--	12/09/97	--	9.91	NM	59,000	19,000	220	1,700	640	NA	--	--	--	--
MW-23X	--	03/12/98	--	9.91	NM	58,000	12,000	110	670	440	NA	--	--	--	--
MW-23X	--	06/02/98	--	9.91	NM	42,000	16,000	180	1,100	330	NA	--	--	--	--
MW-23X	--	09/09/98	--	9.91	NM	25,000	9,800	130	83	240	NA	--	--	--	--
MW-23X	--	12/21/98	--	9.91	NM	22,000	7,700	61	5.5	300	NA	--	--	--	--
MW-23X	--	03/09/99	--	9.91	NM	33,000	11,000	100	<25	560	NA	--	--	--	--
MW-23X	--	06/15/99	--	9.91	NM	20,000	8,000	140	420	270	<500	--	--	--	--
MW-23X	--	09/23/99	--	9.91	NM	14,000	3,400	73	400	300	NA	--	--	--	--
MW-23X	--	12/07/99	--	9.91	NM	5,600	1,800	25	63	100	NA	--	--	--	--
MW-23X	--	03/14/00	--	9.91	NM	7,800	1,100	21	340	160	170	--	--	--	--
MW-23X	--	06/06/00	9.05	9.91	0.86	2,400	130	22	55	39	50	--	--	--	--
MW-23X	--	09/13/00	8.45	9.91	1.46	520	30	4.7	2.8	2.7	22	--	--	--	--
MW-23X	--	12/07/00	9.55	9.91	0.36	1,800	200	27	<0.5	5.7	72	--	--	--	--
MW-23X	--	03/14/01	8.25	9.91	1.66	480	11	10	3.3	<1.0	27	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-23X	--	06/17/01	9.15	9.91	0.76	660	29	12	2.9	5.2	54	--	--	--	--
MW-23X	--	09/12/01	10.11	9.91	-0.20	98	<0.5	3.4	<0.5	<1.0	8	--	--	--	--
MW-23X	--	12/13/01	8.3	9.91	1.61	230	2	6.9	0.7	1.6	4	--	--	--	--
MW-23X	--	03/14/02	8.15	9.91	1.76	520	0.7	26	0.9	<1.5	<5.0	--	--	--	--
MW-23X	--	06/05/02	9.35	9.91	0.56	460	0.7	16	2.3	<1.5	42	--	--	--	--
MW-23X	1	09/12/02	--	9.91	--	--	--	--	--	--	--	--	--	--	--
MW-23X	1	12/11/02	--	9.91	--	--	--	--	--	--	--	--	--	--	--
MW-23X	--	04/01/03	7.29	9.91	2.62	<100	1.4	<0.5	<0.5	<1	5.5	--	--	--	--
MW-23X	--	06/03/03	5.53	9.91	4.38	28 J	0.81	<0.5	<0.5	<1	2.3 J <sup>10</sup>	--	--	--	--
MW-23X	--	08/29/03	6.81	9.91	3.10	29 J	<0.5	<0.5	<0.5	<1	1.2 J	--	--	--	--
MW-23X	--	02/17/04	6.34	9.91	3.57	120	<0.5	<0.5	<0.5	<1	2.3	--	--	--	--
MW-23X	--	08/19/04	6.97	9.91	2.94	50 J	<0.5	<0.5	<0.5	<1	1.6 J	--	--	--	--
MW-23X	--	02/10/05	4.7	9.91	5.21	36 J	<0.5	<0.5	<0.5	<0.5	0.70 J	--	--	--	--
MW-23X	4	08/02/05	6.31	9.91	3.60	240	<0.5	<0.5	<0.5	<1	2.20	<2	0.72 J	<2	11
MW-25	--	01/01/89	--	10.26	NM	10,000	NA	NA	NA	NA	NA	--	--	--	--
MW-25	--	08/09/90	--	10.26	NM	NA	19,300	NA	NA	NA	NA	--	--	--	--
MW-25	--	12/17/91	--	10.26	NM	24,000	3,224	NA	NA	NA	NA	--	--	--	--
MW-25	--	09/25/92	--	10.26	NM	131,000	7,130	NA	NA	NA	NA	--	--	--	--
MW-25	--	09/09/98	--	10.26	NM	25,000	9,800	130	83	240	NA	--	--	--	--
MW-25	--	10/26/95	--	10.26	NM	4,000	76	NA	NA	NA	NA	--	--	--	--
MW-25	--	01/26/96	--	10.26	NM	14,000	510	NA	NA	NA	NA	--	--	--	--
MW-25	--	04/26/96	5.49	10.26	4.77	11,000	3,600	810	ND	2,100	NA	--	--	--	--
MW-25	--	07/09/96	6.13	10.26	4.13	24,000	3,300	560	580	860	NA	--	--	--	--
MW-25	--	11/06/96	6.75	10.26	3.51	17,000	1,800	140	410	440	NA	--	--	--	--
MW-25	--	02/12/97	4.96	10.26	5.30	5,000	48	10	87	92	NA	--	--	--	--
MW-25	--	05/19/97	5.96	10.26	4.30	11,000	530	13	180	120	NA	--	--	--	--
MW-25	--	09/04/97	7.14	10.26	3.12	3,100	450	24	120	7,400	NA	--	--	--	--
MW-25	--	12/09/97	7.26	10.26	3.00	7,400	820	78	6	340	NA	--	--	--	--
MW-25	--	03/12/98	4.36	10.26	5.90	890	5.3	1.5	5.2	8	NA	--	--	--	--
MW-25	--	06/02/98	5.34	10.26	4.92	2,600	120	4.4	64	45	NA	--	--	--	--
MW-25	--	09/09/98	6.81	10.26	3.45	2,900	120	10	38	54	NA	--	--	--	--
MW-25	--	12/21/98	7.85	10.26	2.41	1,500	68	3	6.6	5.9	NA	--	--	--	--
MW-25	--	03/09/99	8.02	10.26	2.24	3,800	230	23	56	54	NA	--	--	--	--
MW-25	--	06/15/99	7.63	10.26	2.63	2,000	220	48	7.7	58	ND	--	--	--	--
MW-25	--	09/23/99	8.09	10.26	2.17	4,300	340	47	33	120	NA	--	--	--	--
MW-25	--	12/07/99	8.45	10.26	1.81	2,000	210	27	21	83	NA	--	--	--	--
MW-25	--	03/14/00	7.4	10.26	2.86	2,100	490	64	1.2	67	<20	--	--	--	--
MW-25	--	06/06/00	6.95	10.26	3.31	7,300	1,600	89	70	340	<50	--	--	--	--
MW-25	--	09/13/00	4.95	10.26	5.31	2,700	500	60	1.1	58	<50.0	--	--	--	--
MW-25	--	12/07/00	8.7	10.26	1.56	3,800	440	71	13	80	<10	--	--	--	--
MW-25	--	03/14/01	5.95	10.26	4.31	22,000	4,000	2000	370	3300	110	--	--	--	--
MW-25	--	06/17/01	6.35	10.26	3.91	5,300	1,600	110	<5	250	<50	--	--	--	--
MW-25	--	09/12/01	7.55	10.26	2.71	2,900	1,200	85	10	56	<50	--	--	--	--
MW-25	--	12/13/01	8.25	10.26	2.01	710	21	18	5.4	7.8	18	--	--	--	--
MW-25	--	03/14/02	8.7	10.26	1.56	430 C2	2.0	6.3	<0.5	0.6 J	26	--	--	--	--
MW-25	--	06/05/02	8.2	10.26	2.06	160	0.7	5.8	0.5 J	0.5 J	17	--	--	--	--
MW-25	--	09/12/02	9.1	10.26	1.16	160	0.27 J	<0.50	<0.50	<1.5	15	--	--	--	--
MW-25	--	12/12/02	8.35	10.26	1.91	98	<1.0	<1.0	<1.0	<3.0	9.3	--	--	--	--
MW-25	--	04/01/03	5.39	10.26	4.87	<100	2.2	<0.5	<0.5	2.9	17	--	--	--	--
MW-25	--	06/03/03	5.36	10.26	4.90	100	1.4	0.75	7.7	39.8	3.2 J <sup>10</sup>	--	--	--	--
MW-25	--	08/29/03	6.19	10.26	4.07	<100	<0.5	<0.5	<0.5	0.89 J	1.2 J	--	--	--	--
MW-25	--	02/17/04	5.87	10.26	4.39	150	0.72	<0.5	<0.5	0.87	1.0 J	--	--	--	--
MW-25	--	08/19/04	6.67	10.26	3.59	30 J	0.37 J	<0.5	<0.5	<1	2.0 J	--	--	--	--
MW-25	--	02/10/05	3.9	10.26	6.36	25 J	<0.5	<0.5	<0.5	<0.5	<2	--	--	--	--
MW-25	4	08/02/05	5.64	10.26	4.62	150	<0.5	<0.5	0.30 J	<1	2.2	<2	0.96 J	<2	<10
MW-26	--	11/01/88	--	8.64	NM	NA	10	NA	NA	NA	NA	--	--	--	--
MW-26	--	01/01/89	--	8.64	NM	ND	10	NA	NA	NA	NA	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-26	--	04/26/96	3.82	8.64	4.82	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	07/09/96	4.49	8.64	4.15	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	11/06/96	5.52	8.64	3.12	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	02/12/97	3.17	8.64	5.47	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	05/19/97	4.3	8.64	4.34	270	ND	<b>0.6</b>	ND	ND	NA	--	--	--	--
MW-26	--	09/04/97	5.46	8.64	3.18	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	12/09/97	5.42	8.64	3.22	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	03/12/98	3	8.64	5.64	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	06/02/98	3.43	8.64	5.21	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	09/09/98	4.94	8.64	3.70	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	12/21/98	5.97	8.64	2.67	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	03/09/99	5.72	8.64	2.92	ND	ND	ND	ND	NA	--	--	--	--	--
MW-26	--	03/14/00	4.71	8.64	3.93	ND	ND	ND	ND	ND	--	--	--	--	--
MW-26	--	03/14/01	3.26	8.64	5.38	ND	<b>0.5</b>	ND	<b>0.6</b>	<b>1.6</b>	ND	--	--	--	--
MW-26	--	03/14/02	5.26	8.64	3.38	<b>30</b>	<b>J/C2</b>	<0.5	<0.5	<0.5	<1.5	<b>2</b>	<b>J</b>	--	--
MW-26	--	12/17/02	5.45	8.64	3.19	<b>20</b>	<b>J</b>	<0.50	<0.50	<0.50	<1.5	<b>1.6</b>	<b>J</b>	--	--
MW-26	--	04/01/03	3.1	8.64	5.54	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-26	--	06/03/03	3.45	8.64	5.19	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-26	--	08/29/03	4.36	8.64	4.28	<100	<0.5	<0.5	<0.5	<1	<b>1.5</b>	<b>J</b>	--	--	--
MW-26	--	02/17/04	3.95	8.64	4.69	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-26	--	08/19/04	4.72	8.64	3.92	<100	<0.5	<0.5	<0.5	<1	<b>0.82</b>	<b>J</b>	--	--	--
MW-26	--	02/10/05	2.29	8.64	6.35	NA	NA	NA	NA	NA	NA	--	--	--	--
MW-26	4	08/02/05	3.46	8.64	5.18	<b>40</b>	<b>J</b>	<0.5	<0.5	<0.5	<1	<2	<2	<2	<10
MW-27	--	01/01/89	--	8.84	NM	ND	ND	NA	NA	NA	--	--	--	--	--
MW-27	--	07/09/96	6.01	8.84	2.83	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	11/06/96	6.92	8.84	1.92	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	02/12/97	4.5	8.84	4.34	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	05/19/97	6.03	8.84	2.81	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	09/04/97	7	8.84	1.84	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	12/09/97	--	8.84	--	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	03/12/98	3.75	8.84	5.09	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	06/02/98	4.72	8.84	4.12	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	09/09/98	6.25	8.84	2.59	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	12/21/98	7.16	8.84	1.68	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	03/09/99	6.98	8.84	1.86	ND	ND	ND	ND	NA	--	--	--	--	--
MW-27	--	03/14/00	5.9	8.84	2.94	ND	ND	ND	ND	ND	--	--	--	--	--
MW-27	--	03/14/01	4.15	8.84	4.69	ND	ND	ND	ND	ND	--	--	--	--	--
MW-27	--	03/14/02	6.15	8.84	2.69	<50	<0.5	<0.5	<0.5	<1.5	<5	--	--	--	--
MW-27	--	12/17/02	5.38	8.84	3.46	<50	<0.50	<0.50	<0.50	<1.5	<2.0	--	--	--	--
MW-27	--	04/01/03	2.99	8.84	5.85	NA	NA	NA	NA	NA	--	--	--	--	--
MW-27	--	06/03/03	3.34	8.84	5.50	NA	NA	NA	NA	NA	--	--	--	--	--
MW-27	--	08/29/03	4.32	8.84	4.52	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-27	--	02/17/04	4.17	8.84	4.67	NA	NA	NA	NA	NA	--	--	--	--	--
MW-27	--	08/19/04	4.89	8.84	3.95	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-27	--	02/10/05	1.68	8.84	7.16	NA	NA	NA	NA	NA	--	--	--	--	--
MW-27	--	08/03/05	2.78	8.84	6.06	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
MW-30	--	09/04/97	--	8.60	NA	<b>2,900</b>	<b>20,000</b>	<b>15,000</b>	<b>2,700</b>	<b>16,000</b>	NA	--	--	--	--
MW-30	--	12/09/97	--	8.60	NA	<b>130,000</b>	<b>23,000</b>	<b>11,000</b>	<b>490</b>	<b>15,000</b>	NA	--	--	--	--
MW-30	--	03/12/98	--	8.60	NA	<b>120,000</b>	<b>16,000</b>	<b>2,700</b>	<b>1,600</b>	<b>9,300</b>	NA	--	--	--	--
MW-30	--	06/02/98	--	8.60	NA	<b>84,000</b>	<b>21,000</b>	<b>4,000</b>	<b>1,000</b>	<b>7,100</b>	NA	--	--	--	--
MW-30	--	09/09/98	--	8.60	NA	<b>76,000</b>	<b>21,000</b>	<b>2,300</b>	<b>2,400</b>	<b>5,600</b>	NA	--	--	--	--
MW-30	--	12/21/98	--	8.60	NA	<b>72,000</b>	<b>21,000</b>	<b>990</b>	<b>1,800</b>	<b>2,900</b>	NA	--	--	--	--
MW-30	2	03/09/99	--	8.60	--	--	--	--	--	--	--	--	--	--	--
MW-30	--	06/15/99	--	8.60	NA	<b>65,000</b>	<b>11,000</b>	<b>720</b>	<b>1,100</b>	<b>5,000</b>	<b>1,500</b>	--	--	--	--
MW-30	2	09/22/99	--	8.60	--	--	--	--	--	--	--	--	--	--	--
MW-30	2	12/07/99	--	8.60	--	--	--	--	--	--	--	--	--	--	--
MW-30	2	03/14/00	--	8.60	--	--	--	--	--	--	--	--	--	--	--
MW-30	2	06/05/00	--	8.60	--	--	--	--	--	--	--	--	--	--	--
MW-30	--	09/13/00	5.6	8.60	3.00	<b>22,000</b>	<b>6,600</b>	<b>55</b>	<b>660</b>	<b>63</b>	<b>2,100</b>	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
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Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-30	--	12/07/00	6.2	8.60	2.40	38,000	14,000	300	1,300	1,000	11,000	--	--	--	--
MW-30	--	03/14/01	2.35	8.60	6.25	ND	ND	ND	ND	ND	ND	--	--	--	--
MW-31	--	06/05/02	4.6	8.93	4.33	110,000	25,000	31,000	2,900	15,000	<2,500 F2	--	--	--	--
MW-31	--	09/12/02	5.6	8.93	3.33	120,000	26,000	31,000	2,700	15,000	<1,000	--	--	--	--
MW-31	--	12/12/02	6	8.93	2.93	77,000	16,000	22,000	1,600	9,800	<1,000	--	--	--	--
MW-31	--	04/01/03	3.81	8.93	5.12	75,000	28,000	19,000	1,600	11,100	14 J	--	--	--	--
MW-31	--	06/03/03	5.51	8.93	3.42	47,000	8,600	11,000	1,100	7,300	57 J	--	--	--	--
MW-31	--	08/29/03	12.13	8.93	-3.20	21,000	5,000	4,700	130	2,010	50 J	--	--	--	--
MW-31	--	02/17/04	8.99	8.93	-0.06	26,000	7,000	1,800	1,100	1,400	120	--	--	--	--
MW-31	--	08/19/04	9.33	8.93	-0.40	13,000	6,200	64	290	25 J	280	--	--	--	--
MW-31	--	02/10/05	4.65	8.93	4.28	33 J	<0.5	<0.5	<0.5	<0.5	3.5	--	--	--	--
MW-31	4	08/04/05	4.68	8.93	4.25	<100	0.82	<0.5	<0.5	<1	2.6	<2	<2	<2	<10
MW-32	--	06/05/02	8.55	10.26	1.71	6,900	2,000	35	<10	390	3,400	--	--	--	--
MW-32	--	09/12/02	10.1	10.26	0.16	5,100	<10	<10	<10	<30	2,800	--	--	--	--
MW-32	--	12/17/02	9.12	10.26	1.14	11,000	2,700	4.8 J	5.0 J	42	10,000	--	--	--	--
MW-32	--	12/17/02	9.12	10.26	1.14	11,000	2,700	4.8 J	5.0 J	42	10,000	--	--	--	--
MW-32	--	04/01/03	9.35	10.26	0.91	200	<0.5	<0.5	<0.5	<1	10,000	--	--	--	--
MW-32	--	06/03/03	9.76	10.26	0.50	6,300	1,300	<10	<10	<20	5,700	--	--	--	--
MW-32	--	08/29/03	9.81	10.26	0.45	20,000	5,500	<25	<25	<50	7,200	--	--	--	--
MW-32	--	02/17/04	9.92	10.26	0.34	19,000	2,800	<25	<25	<50	14,000	--	--	--	--
MW-32	--	08/19/04	9.44	10.26	0.82	7,200	1,000	<0.5	<0.5	0.95 J	5,400	--	--	--	--
MW-32	--	02/10/05	7.58	10.26	2.68	10,000	690	<50	<50	<50	13,000	--	--	--	--
MW-32	4	08/04/05	7.9	10.26	2.36	12,000	64	<0.5	<0.5	<1	19,000	0.97	1.3 J	46	14000
MW-33	--	06/05/02	9.42	9.77	0.35	4,100	980	39	<5 F2	970	150	--	--	--	--
MW-33	--	09/12/02	11.47	9.77	-1.70	430	<0.50	<0.50	<0.50	<1.5	47	--	--	--	--
MW-33	--	12/12/02	10.1	9.77	-0.33	340	150	1.8	5.5	34	110	--	--	--	--
MW-33	--	04/01/03	5.01	9.77	4.76	10,000	11,000	190	190	1,000	86	--	--	--	--
MW-33	--	06/03/03	6.37	9.77	3.40	2,700	780	5.7	460	45	11	--	--	--	--
MW-33	--	08/29/03	7.79	9.77	1.98	28,000	8,800	680	84	4,700	72 J	--	--	--	--
MW-33	--	02/17/04	8.93	9.77	0.84	5,700	2,000	73	340	610	47	--	--	--	--
MW-33	--	08/19/04	7.09	9.77	2.68	7,200	1,900	150	52	1,600	540	--	--	--	--
MW-33	--	02/10/05	4.8	9.77	4.97	10,000	2,600	500	280	1,370	<200	--	--	--	--
MW-33	--	08/04/05	6.72	9.77	3.05	3,300	2,100	8.4	370	44	23	<2	4.3	<2	15
MW-34	--	02/17/04	6.46	9.74	3.28	15 J	1.7	<0.5	<0.5	<1	<2	--	--	--	--
MW-34	--	08/19/04	6.93	9.74	2.81	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-34	--	02/10/05	--	9.74	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-34	5	08/03/05	--	9.74	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-35	--	02/17/04	8.86	9.96	1.10	12,000	3,100	8.0	110	263	130	--	--	--	--
MW-35	--	08/19/04	8.09	9.96	1.87	11,000	5,300	7.4	490	165	280	--	--	--	--
MW-35	--	02/10/05	5.7	9.96	4.26	3,600	1500	<5	120	32	43	--	--	--	--
MW-35	4	08/04/05	6.71	9.96	3.25	6,500	3800	1.3	55	2.4	120	<2	1.2 J	<2	48
MW-36	--	02/17/04	5.26	10.67	5.41	180	4.6	<0.5	<0.5	<1	<2	--	--	--	--
MW-36	--	08/19/04	6.3	10.67	4.37	<100	<0.5	<0.5	<0.5	<1	<2	--	--	--	--
MW-36	--	02/10/05	3.55	10.67	7.12	89 J	<0.5	<0.5	<0.5	<0.5	<2	--	--	--	--
MW-36	--	08/02/05	5.11	10.67	5.56	<100	<0.5	<0.5	<0.5	<1	<2	<2	<2	<2	<10
EW-19	--	06/17/01	6.02	9.92	3.90	13,000	4,800	12	24	8.3	5,300	--	--	--	--
EW-19	--	09/12/01	6.63	9.92	3.29	26,000	7,800	230	450	1,100	13,000	--	--	--	--
EW-19	--	12/13/01	6.62	9.92	3.30	54,000	23,000	250	1,500	820	18,000	--	--	--	--
EW-19	--	03/14/02	6.32	9.92	3.60	11,000 C2	2,900	66	45	1,000	14,000	--	--	--	--
EW-19	--	12/11/02	6.9	9.92	3.02	NA	NA	NA	NA	NA	NA	--	--	--	--
EW-19	--	04/01/03	8.89	9.92	1.03	3,200	2,200	<5	100	23	760	--	--	--	--
EW-19	--	06/03/03	8.41	9.92	1.51	7,100	2,900	<10	15	<20	1,000	--	--	--	--
EW-43	--	02/17/04	8.69	9.96	1.27	1,400	100	<0.5	40	1.84 J	26	--	--	--	--
EW-43	--	08/19/04	8.33	9.96	1.63	600	72	<0.5	1.1	<1	8.9	--	--	--	--
EW-43	--	02/10/05	5.48	9.96	4.48	230	2.9	<0.5	<0.5	<0.5	1.5 J	--	--	--	--
EW-43	--	08/04/05	6.35	9.96	3.61	230	5.0	<0.5	<0.5	<1	5.8	<2	<2	<2	140
MW-X	--	07/08/96	--	--	--	2,000	2,300	NA	NA	NA	NA	--	--	--	--

**Appendix A**  
**Historical Summary of Groundwater Monitoring Results**  
**Naval Base Ventura County**  
**Nex Gas Station**  
**Point Mugu, California**  
**(Page 14 of 14)**

Well No.	Notes	Sample Date	Groundwater Levels			Laboratory Analytical Results									
			Depth to Groundwater (ft bgs)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPH-g µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L
MW-Y	--	07/08/96	--	--	--	11,000	18,000	NA	NA	NA	NA	--	--	--	--
RW-1	--	10/26/95	--	--	--	NA	5.4	NA	NA	NA	NA	--	--	--	--
RW-1	--	01/26/96	--	--	--	4,000	5,200	NA	NA	NA	NA	--	--	--	--
RW-1	--	07/09/96	--	--	--	23,000	11,000	NA	NA	NA	NA	--	--	--	--
RW-2	--	10/26/95	--	--	--	NA	0.4	NA	NA	NA	NA	--	--	--	--
RW-2	--	01/26/96	--	--	--	ND	250	NA	NA	NA	NA	--	--	--	--
RW-2	--	07/09/96	--	--	--	2,400	2,300	NA	NA	NA	NA	--	--	--	--
RW-3	--	10/26/95	--	--	--	NA	ND	NA	NA	NA	NA	--	--	--	--
RW-3	--	01/26/96	--	--	--	ND	ND	NA	NA	NA	NA	--	--	--	--
RW-3	--	07/09/96	--	--	--	600	280	NA	NA	NA	NA	--	--	--	--
RW-4	--	10/26/95	--	--	--	NA	12	NA	NA	NA	NA	--	--	--	--
RW-4	--	01/26/96	--	--	--	ND	24	NA	NA	NA	NA	--	--	--	--
RW-4	--	07/09/96	--	--	--	ND	7.6	NA	NA	NA	NA	--	--	--	--

**NOTES:**

Multi-phase extraction system began in September 1996.

1 - Well was dry and was not sampled.

2 - No measurements were taken. Well was silted up above water table.

3 - Duplicate sample

4 - Bailer Sample

5 - Well damaged/ inaccessible

MSL - mean sea level.

MW-3 converted to AS-1 in September 1997

Starting in 2003, TPH-g was quantified using EPA 8260B. Previous results are by EPA 8015M.

Monitoring Wells MW-16 and MW-22 were abandoned (see section 3.7 of 2003 Well Installation Report).

Monitoring Well MW-30 was abandoned (see section 3.2 of 2001 Quarterly Report #2), and EW was monitored in its place until June 2003.

TPH-g - total petroleum hydrocarbons as gasoline.

MTBE - Methyl Tertiary Butyl Ether

DIPE - Di-isopropyl Ether

TAME - Tretuart Amyl Methyl Ether

TBA - tertiary Butyl Alcohol

µg/L - Micrograms per liter

**Data Qualifiers**

-- - No data for the cell

NA: not analyzed

NM: not measured

< : Not detected at the stated reporting limit

ND: not detected

C2: Sample pH was 7. VOA vial marked preserved.

C2A: Sample pH was 4

D: The result is from dilution.

J: Estimated Concentration. The result is less than the practical quantitation limit (PQL), but greater than the method detection limit (MDL).

E: Estimated value. Interfering non-target peak coeluted with MTBE. Sample reanalyzed with same results. MTBE could not be verified by GC/MS due to lack of sufficient sample volume.

F2: The PQL or method detection limit is elevated because of matrix interferences and because the sample required diluting.

**APPENDIX B**

**AUGUST 2005 GROUNDWATER MONITORING PURGE LOGS**

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: GTI-3	Date: 8/3/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 5.22	Total Well Depth: 17	Water Column Height (H): 11.78	Top of Casing Elevation: 8.44								
Gauging Time: 1730	Casing diameter (D) = 4 in.	1 casing volume = $(D^2)(H)(0.0408) = 7.7$ gal	3 casing volumes = 23.1 gal.								
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge	Purge Equipment: Sample truck	Pump Id: Truck Pump									
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
5.08	1733	0.25									
5.55	1735	0.25	86.1	0.5	7.35	31668	98.3	19.61	0.17	-15.4	cloudy, black
6.05	1740	0.25	86.1	1.75	7.40	31757	93.5	19.95	0.06	-13.9	clear, colorless
6.57	1745	0.25	86.1	3.00	7.42	31755	45.9	19.99	0.05	-13.6	" "
7.57	1750	0.15	86.1	3.75	7.48	31747	33.3	20.76	0.05	-14.5	↓ purge rate
7.95	1755	1.0	129.3	8.75	7.47	31673	76.2	19.92	0.04	-13.9	↑ purge rate
10.10	1800	1.0	129.6	13.75	7.42	31746	15.1	19.92	0.06	-11.3	clear, colorless
11.50	1805	1.0	130.0	18.75	7.41	31759	19.1	19.49	0.02	-10.2	" "
12.35	1807	1.0	130.0	20.75	7.41	31718	9.6	19.33	0.01	-8.6	" "
12.71	1808	1.0	130.0	21.75	7.39	31725	6.2	19.25	0.01	-7.9	" "
13.24	1809	1.0	130.0	22.75	7.41	31714	5.8	19.22	0.01	-7.4	
13.70	1810	1.0	130.0	23.75	7.40	31751	4.8	19.22	0.01	-6.9	
13.98	1811	1.0	130.0	24.75	7.40	31824	5.0	19.22	0.00	-6.6	80% = 7.6 FT BTBC
											Gallons = ml's/3781
5.80	1940	BAILER SAMPLE									Sample Rate: BAILER
											Total Casing Volumes Removed: 3+
											Total Gallons Removed: 24.75

Sample ID.(time): GTI -3 (1940) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260 B, TPHg, BTEX, FUEL OXYGENATES Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: GTI-6	Date: 8-2-05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 5.0	Total Well Depth: 19.3	Water Column Height (H): 14.3	Top of Casing Elevation: 10.82								
Gauging Time: 756	Casing diameter (D)= 4 in.	1 casing volume= $(D^2)(H)(0.0408) = 9.34$ gal	3 casing volumes= $28.01$ gal.								
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge	Purge Equipment: Redi-Flow 2"	Pump Id: Sample Truck									
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
5.15	0806	1.0gpm	86.2	1gal	7.12	1869	13.6	22.40	0.06	128.7	clear colorless
5.45	0808	1.0gpm	86.1	3gal	7.09	1793	12.6	22.64	0.05	135.5	
5.71	0810	0.2gpm	84.2	3.4gal	7.19	1739	11.5	22.95	0.06	134.5	
5.98	0812	0.2gpm	84.2	3.8gal	7.21	1660	7.2	23.33	0.06	133.4	
6.15	0814	0.15gpm	84.2	4.1gal	7.23	1588	6.4	23.50	0.06	132.2	
6.50	0818	0.15gpm	84.2	4.7gal	7.25	1465	5.3	23.79	0.01	128.9	
6.70	0822	0.15gpm	84.2	5.3gal	7.27	1419	4.3	23.90	0.01	127.0	
7.20	0829	0.5gpm	103.7	7.05+	7.31	1413	3.8	23.53	0.00	120.4	changed to 0.5gpm 0827 due
7.75	0831	0.5gpm	103.7	8.05	7.29	1315	2.8	23.80	0.01	120.5	to low yield (high drawdown)
8.60	0832	0.5gpm	103.7	9.05	7.30	1201	2.1	23.98	0.01	119.4	
9.15	0835	0.5gpm	106.0	10.55	7.33	1175-1140	3.2	23.78	0.02	117.1	
10.10	0837	0.5gpm	106.0	11.55	7.29	1025	2.0	24.41	0.06	117.7	
10.80	0840	0.5gpm	106.0	12.05	7.29	996	1.1	24.97	0.12	117.1	
11.70	0843	0.5gpm	115.3	14.55	7.29	1007	0.2	25.02	0.12	116.5	Gallons = ml's/3781
13.07	0847	0.5gpm	115.3	16.55	7.30	1220	0.0	24.68	0.08	115.5	Sample Rate:
14.22	0850	1.0gpm	136.3	19.55	7.32	1449	0.3	24.14	0.05	113.9	Total Casing Volumes Removed:
15.15	0852	1.0gpm	136.3	21.55	7.34	1703	0.0	23.82	0.04	113.1	Total Gallons Removed:

Sample ID.(time): GTI-6 (1106) Dup ID.: ( ) Rinsate ID.: ( ) Sampler: JL/AN

Analytical Methods: 8260B TPHg - BTEX & Fuel ox

# **Groundwater Monitoring Program**

## **Gauging Log & Development / Sampling Log**

Sample ID.(time): ~~A-1~~GTF-6 (11Db) Dup ID.: \_\_\_\_\_ ( ) Rinsate ID.: \_\_\_\_\_ ( )

Analytical Methods: B260B TPH<sub>g</sub> BTX & fuel ox Sampler: JL



# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-2	Date: 8-2-05	Project: POINT MUGU			Project No. 29868489						
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water:	6.32	Total Well Depth:	9.82	Water Column Height (H):	3.50	Top of Casing Elevation: 9.99					
Gauging Time: 1352		Casing diameter (D)= 2 in.	1 casing volume= $(D^2)(H)(0.0408) = 0.57$ gal			3 casing volumes= 1.713 gal.					
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge				Purge Equipment: Sample truck Red flow			Pump Id: Sample truck				
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
6.46	1357	0.05gpm	95.8	0.1gal	8.20	6590	57.4	24.45	0.75	-42.0	
6.48	1359	0.05gpm	95.8	0.2gal	8.47	7224	37.6	24.26	0.52	-62.0	
6.51	<del>1401</del>	0.05gpm	95.8	0.3gal	8.68	7136	24.9	24.18	0.20	-90.6	
6.55	1403	0.05gpm	95.8	0.49gal	8.60	6910	22.7	24.35	0.13	-89.4	
6.61	1406	0.05gpm	95.8	0.59gal	8.44	6666	23.3	24.92	0.11	-83.3	
6.65	1408	0.05gpm	95.8	0.659gal	8.24	6390	20.1	25.780	0.10	-70.7	
6.73	1414	0.05gpm	95.8	0.459gal	8.02	5860	13.1	27.36	0.14	-45.0	
6.83	1421	0.05gpm	95.8	1.3gal	7.85	5360	10.5	28.27	0.14	-18.0	
6.90	1425	0.05gpm	95.8	1.59gal	7.82	5280	10.9	28.44	0.13	-11.8	
6.97	1430	0.05gpm	95.8	1.75gal	7.80	5305	10.7	28.50	0.13	-10.7	
											Gallons = ml's/3781
											Sample Rate: 100 ml/min
											Total Casing Volumes Removed: 3+
											Total Gallons Removed: 1.75

Sample ID.(time): MW-2 (1432) Dup ID.: ( ) Rinsate ID.: ( )

Analytical Methods: 82606 TPHg BTEX, & fuel oxygenates Sampler: JL

**URS****Groundwater Monitoring Program  
Gauging Log & Development / Sampling Log**

Well Number: MW-4	Date: 8/3/05	Project: POINT MUGU	Project No. 29868489								
Gauging Data from Top of Casing (Reference Point)											
Depth to Water: 5.91	Total Well Depth: 9.85	Water Column Height (H): 3 - 94	Top of Casing Elevation: 9.02								
Gauging Time: 1637	Casing diameter (D) = 3 in.	1 casing volume = $(D^2)(H)(0.0408) = 0.64$ gal	3 casing volumes = 1.93 gal.								
Groundwater Purge Data											
Purge Method: Standard Purge					Purge Equipment: sample truck				Pump Id:		
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
5.73	1641										
6.46	1644	0.05	92.8	0.15	7.66	4590	316.2	21.91	0.25	-38.5	
6.80	1646	0.05	92.8	0.25	7.82	4678	164.0	21.31	0.17	-47.9	
7.02	1648	0.05	92.8	0.35	7.77	4788	130.6	21.43	0.17	-46.5	
7.35	1652	0.05	92.8	0.55	7.70	4931	80.7	22.33	0.18	-47.1	
7.59	1655	0.05	92.8	0.70	7.69	4966	53.5	23.08	2.21	-49.7	
7.00	1700	0.05	92.8								DRY
6.44	1830	BAILER	SAMPLED								
											80% = 6.70
											Gallons = ml's/3781
											Sample Rate: BAILER
											Total Casing Volumes Removed: 1+
											Total Gallons Removed: 0.70

Sample ID.(time): MW-4 (1830) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260B; BTEX, TPH<sub>g</sub>, FUEL OXYGENATES Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-6	Date: 8/4/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 4.73	Total Well Depth: 9.8	Water Column Height (H): 5.07	Top of Casing Elevation: 8.77								
Gauging Time: 0610		Casing diameter (D)= 2 in. 1 casing volume= $(D^2)(H)(0.0408) = 0.83$ gal 3 casing volumes= 2.5 gal.									
<b>Groundwater Purge Data</b>											
Purge Method:	Standard Purge						Purge Equipment:			Pump Id:	
Depth to Water	Time	(gpm) Purge Rate	Hz	gal Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
4.65	0612	0.05	93								
4.95	0614	0.05	93.7	0.10	8.63	6257	25.0	20.51	0.64	-215.4	clear, colorless
5.15	0620	0.05	93.7	0.40	9.83	6402	33.5	23.75	1.47	-310.0	" "
5.35	0624	0.05	93.9	0.60	9.48	5702	24.4	24.71	1.66	-311.2	" "
5.60	0630	0.05	93.9	0.90	8.98	4100	8.3	26.41	2.03	-290.3	" "
5.96	0636	0.05	93.8	1.20	8.88	4150	4.8	26.84	1.98	-286.5	" "
6.52	0640	0.15	93.8	1.80	8.87	4466	7.4	27.80	1.94	-290.3	" "
6.85	0642	0.15	93.9	2.10	8.94	5011	3.4	27.42	1.83	-290.4	" "
7.10	0643	0.15	93.8	2.25	8.98	5427	3.0	27.08	1.71	-290.9	" "
7.30	0644	0.15	93.8	2.40	9.01	5653	2.8	26.93	1.66	-292.5	" "
7.55	0645	0.15	93.8	2.55	9.05	5730	2.9	26.80	1.67	-296.5	" " complete purge
5.70	0745	BAILER SAMPLE									806 = 5.7 FT BT0C
											Gallons = ml's/3781
											Sample Rate: BAILER
											Total Casing Volumes Removed: 3+
											Total Gallons Removed: 2.55

Sample ID.(time): MW-6 (0745) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260 B: BTEX, TPtHg, Fuel oxygenates Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-8	Date: 8/3/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 4.92	Total Well Depth: 9.82	Water Column Height (H): 4.9	Top of Casing Elevation: 9.61								
Gauging Time: 1027	Casing diameter (D)= 2 in.	1 casing volume= $(D^2)(H)(0.0408) = 0.80$ gal	3 casing volumes= 2.40 gal.								
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge	Purge Equipment: Sample truck	Pump Id:									
Depth to Water	Time	(gpm) Purge Rate	Hz	(gal) Vol. Removed	pH (Units)	Specific Conductivity ( $\mu$ S/cm)	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
5.35	1049	—	—	—	—	—	—	—	—	—	—
5.36	1050	0.05	96.6	0.05	7.94	6097	280.6	24.11	1.90	31.1	clear, brown particulate
5.60	1055	0.05	96.6	0.30	8.07	5692	231.7	25.65	1.67	25.1	" "
5.92	1100	0.05	96.6	0.55	8.08	4806	140.0	27.63	1.75	33.6	" "
6.26	1105	0.05	96.6	0.80	8.10	4433	95.5	28.90	2.05	39.4	" "
6.68	1109	0.05	96.6	1.00	8.11	4332	80.0	29.49	2.17	43.1	
	1113	0.10	96.6	1.40	8.18	4598					↑ Purge rate: clear, colorless
(an) 4.75											DRY
5.02	1329										continue purge
	1331	0.05		0.15	7.74	4069	291.1	25.33	1.61	64.8	Dry → sample
6.7	1340	BAILER SAMPLE									80% = 5.9 FT BTDC
											Gallons = ml's/3781
											Sample Rate: Bailer
											Total Casing Volumes Removed: 1.88
											Total Gallons Removed: \$4.45

Sample ID.(time): MW-8 (1340) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260 B: TPH<sub>g</sub>, BTEX, FUEL OXYGENATES Sampler: ISKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-9	Date: 8-2-05	Project: POINT MUGU			Project No. 29868489						
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 4.55		Total Well Depth: 9.8		Water Column Height (H): 5.25		Top of Casing Elevation: 8.96					
Gauging Time: 13:25		Casing diameter (D) = 2 in.		1 casing volume = $(D^2)(H)(0.0408)$ = 0.857 gal. 3 casing volumes = 2.57 gal.							
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge				Purge Equipment: Sample Truck				Pump Id: Sample Truck			
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
4.83	1336	0.05 gpm	91.7	0.1 gal	7.34	2516	141.6	25.16	0.64	80.7	
5.37	1340	0.05 gpm	91.7	0.3 gal	7.15	4235	121.2	27.56	0.71	85.7	
7.78	1342	0.20 gpm	95.7	0.7 gal	7.18	4150	85.1	27.79	0.51	84.7	
—	1344	0.20 gpm	95.8	1.1 gal	7.20	3903	37.3	27.28	0.27	81.5	DRY Sample @ 80% or 2 hrs at 5.6' bgs
5.40	14:00	Benton sampled	—	—	—	—	—	—	—	—	
											Gallons = ml's/3781
											Sample Rate: 0.1 gal
											Total Casing Volumes Removed:
											Total Gallons Removed: 1.1

Sample ID.(time): 440 mw-9 (14:00) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: BTEX TPH<sub>o</sub> BTEX & fuel oil Sampler: JL

## Groundwater Monitoring Program Gauging Log & Development / Sampling Log

Well Number: MW-10	Date: 8/4/05	Project: POINT MUGU	Project No. 29868489								
Gauging Data from Top of Casing (Reference Point)											
Depth to Water: 5.61	Total Well Depth: 9.88	Water Column Height (H): 4.27	Top of Casing Elevation: 10.13								
Gauging Time: 0838	Casing diameter (D) = 2 in.	1 casing volume = $(D^2)(H)(0.0408) = 0.70$ gal 3 casing volumes = 2.1 gal.									
Groundwater Purge Data											
Purge Method: Standard Purge				Purge Equipment: Sample Truck				Pump Id: Sample Truck			
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
5.38	0840	0.05	95.2								
5.91	0842	0.05	98.5	0.10	7.91	23021	400.0	22.17	0.47	-188.4	cloudy, colorless
6.06	0844	0.05	98.5	0.30	7.97	22859	504.8	22.10	0.34	-190.3	" "
6.22	0848	0.05	98.5	0.50	7.88	19070	294.8	22.28	0.73	-189.5	" "
6.44	0854	0.05	98.5	0.80	7.70	17438	159.2	22.60	0.68	-186.1	" "
6.62	0900 <del>0859 BD</del>	0.05	98.5	1.10	7.72	17800	82.6	23.49	0.68	-190.3	" "
7.01	0904	0.15	98.5	1.70	7.71	18100	80.9	25.16	0.64	-192.1	" ↑ purge rate
7.13	0905	0.15	98.5	1.85	7.69	17781	61.0	25.02	0.54	-192.7	" "
7.24	0906	0.15	98.5	2.00	7.69	17652	59.0	24.62	0.64	-193.5	" "
7.31	0907	0.15	98.5	2.15	7.72	17677	61.2	24.55	0.60	-195.4	" "
6.21	0955	BAILER SAMPLE								80% = 6.5 FT BTOC	
										Gallons = ml's/3781	
										Sample Rate: BAILER	
										Total Casing Volumes Removed: 3+	
										Total Gallons Removed: 2.15	

Sample ID.(time): MW-10 (0955) Dup ID.: DUP1-080405 (060) Rinsate ID.: EBI-080405 (0935)

Analytical Methods: 4260 B: TPHg, BTEX, fuel oxygenates Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-12	Date: 8/2/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 3.88	Total Well Depth: 8.95	Water Column Height (H): 5.07	Top of Casing Elevation: 8.34								
Gauging Time: 1040      Casing diameter (D) = 2 in.      1 casing volume = $(D^2)(H)(0.0408)$ = 0.83 gal      3 casing volumes = 2.5 gal.											
<b>Groundwater Purge Data</b>											
Purge Method:	Standard Purge	Purge Equipment: Sample Truck	Pump Id: Sample Truck								
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
4.01	1045	0.1 gpm	86.8	0.2 gal	7.25	1342	77.6	23.34	1.01	89.7	Clean, colorless
4.11	1047	0.05 gpm	86.8	0.3 gal	7.38	1598	83.1	24.02	0.97	34.4	
4.25	1050	0.05 gpm	86.8	0.45 gal	7.64	1640	55.6	24.55	0.92	15.7	* generator shut off, Re Started
4.36	1055	0.05 gpm	86.8	* 0.55 gal	7.52	1636	77.6	25.80	0.135	22.9	pale yellow color
4.48	1058	0.025	92.5	0.625 gal	7.46	1633	62.6	25.22	1.32	28.1	
4.33	1102	0.025	92.5	0.725 gal	7.40	1635	47.1	24.78	1.20	35.2	
4.35	1105	0.025	92.5	0.8 gal	7.10	1632	44.1	24.42	0.91	73.1	
4.35	1108	0.025	92.5	0.873 gal	6.98	1633	43.6	24.48	0.31	85.7	
4.40	1111	0.025	92.5	0.948 gal	6.99	1632	38.1	24.72	0.15	83.1	
4.50	1118	0.025	92.5	1.12 gal	7.33	1640	34.7	26.35	0.11	33.9	
4.54	1123	0.025	92.5	1.245 gal	7.36	1644	29.8	27.12	0.09	24.0	
4.75	1130	0.05 gpm	92.5	1.60 gal	7.36	1649	28.8	29.50	0.07	10.7	
4.94	1135	0.05 gpm	92.5	1.85 gal	7.40	1646	12.9	29.58	0.06	4.0	
5.02	1140	0.05 gpm	92.5	2.10 gal	7.40	1645	14.0	29.40	0.05	2.1	Gallons = ml's/3781
5.03	1145	0.05 gpm	92.5	2.35 gal	7.39	1645	11.5	28.85	0.05	2.8	Sample Rate: 0.1 Lpm
4.95	1150	0.025	92.5	2.45 gal	7.35	1645	10.9	28.79	0.04	2.7	Total Casing Volumes Removed: 31
4.83	1156	0.025	92.5	2.59 gal	7.33	1637	11.5	28.81	0.07	2.9	Total Gallons Removed: 2.57

Sample ID.(time): MW-12 (1158) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: BTEX, TPHg, Fucox Sampler: JL

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-13	Date: 8/3/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 2.65	Total Well Depth: 9.8	Water Column Height (H): 7.15	Top of Casing Elevation: 8.38								
Gauging Time: 1845		Casing diameter (D)= 2 in. 1 casing volume= $(D^2)(H)(0.0408)$ = 1.2 gal. 3 casing volumes= 3.5 gal.									
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge				Purge Equipment: Sample Truck				Pump Id: Sample Truck			
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
2.51	1848	0.20									
3.55	1850	0.20	103.7	0.4	8.30	2150	210.0	24.91	1.33	-74.4	cloudy, black
3.61	1852	0.20	103.7	0.8	8.44	1157	149.5	26.37	2.26	-95.8	cloudy, colorless
3.72	1854	0.20	103.7	1.2	8.54	1003	111.5	27.88	3.18	-117.2	" "
3.95	1858	0.20	103.7	2.0	8.76	989	18.1	28.85	4.11	-151.9	" "
4.15	1902	0.20	103.7	2.8	9.01	982	6.9	28.94	4.77	-181.9	clear, colorless
4.20	1903	0.20	103.7	3.0	9.04	978	6.2	28.97	4.90	-181.7	" "
4.24	1904	0.20	103.7	3.2	9.02	976	6.0	28.93	4.92	-182.0	" "
4.30	1905	0.20	103.7	3.4	9.05	975	6.0	28.94	5.02	-187.7	" "
4.35	1906	0.20	103.7	3.6	9.02	975	5.4	28.92	5.05	-177.3	Purge complete
4.08	1915	BAILER SAMPLE									80% = 4.08 FT BTDC
											Gallons = ml's/3781
											Sample Rate: BAILER
											Total Casing Volumes Removed: 3
											Total Gallons Removed: 3.6

Sample ID.(time): MW-13 (1915) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260 B:TPH<sub>j</sub>, BTEX, FUEL OXYGENATES Sampler: BKP

## Groundwater Monitoring Program Gauging Log & Development / Sampling Log

Well Number: MW-14	Date: 8-2-05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 2.80	Total Well Depth: 9.30	Water Column Height (H): 6.50	Top of Casing Elevation: 8.14								
Gauging Time: 1208 Casing diameter (D)= 2 in. 1 casing volume= $(D^2)(H)/0.0408 = 1.06$ gal. 3 casing volumes= 3.18 gal.											
<b>Groundwater Purge Data</b>											
Purge Method:	Standard Purge	Purge Equipment:	Sample Truck	Pump Id:	Sample Truck						
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
2.93	1213	0.1gpm	81.2	0.1gal	7.25	2356	2033.0	23.87	1.03	23.9	Light brown color
2.98	1216	0.1gpm	81.2	0.4gal	7.43	5051	425.0	23.50	0.78	33.5	
3.05	1219	0.05gpm	81.2	0.55gal	7.32	3673	436.5	23.93	0.67	46.9	Faint brown color
3.13	1224	0.05gpm	81.2	0.80gal	7.25	2837	279.0	25.18	0.74	56.4	
3.18	1228	0.05gpm	81.2	1.0gal	7.27	2680	156.7	26.03	0.68	57.2	
3.25	1232	0.05gpm	81.2	1.2gal	7.35	2495	43.8	26.85	0.64	56.9	
3.31	1236	0.05gpm	81.2	1.4gal	7.31	2471	31.8	26.96	0.62	57.3	
3.40	1242	0.05gpm	81.2	1.7gal	7.44	2506	40.9	27.02	0.57	56.5	
3.43	1246	0.05gpm	81.2	1.9gal	7.45	2512	35.2	27.11	0.53	57.6	
3.45	1251	0.05gpm	81.2	2.15gal	7.46	2500	28.3	27.19	0.50	59.6	
3.53	1256	0.05gpm	81.2	2.40gal	7.46	2515	20.8	27.03	0.46	61.5	
3.50	1302	0.05gpm	81.2	2.70gal	7.45	2519	54.8	26.77	0.50	63.0	
3.54	1308	0.05gpm	81.2	3.00gal	7.44	2532	28.1	26.72	0.45	64.6	
3.52	1310	0.05gpm	81.2	3.10gal	7.44	2524	38.1	26.69	0.42	65.1	Gallons = ml's/3781
3.55	1312	0.05gpm	81.2	3.20gal	7.44	2523	38.4	26.71	0.41	65.7	Sample Rate: ~100ml/min
3.56	1314	0.05gpm	81.2	3.30gal	7.44	2514	37.8	26.72	0.38	65.8	Total Casing Volumes Removed: 3.30
											Total Gallons Removed: 3.30

Sample ID.(time): MW-14 (1320) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: D240B TPtig BTx4 & fuel oil Sampler: 52

## Groundwater Monitoring Program Gauging Log & Development / Sampling Log

Well Number: MW-15	Date: 8/3/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 3.82	Total Well Depth: 9.45	Water Column Height (H): 5.63	Top of Casing Elevation: 8.62								
Gauging Time: 1503 Casing diameter (D)= 2 in. 1 casing volume= $(D^2)(H)(0.0408) = 0.92$ gal 3 casing volumes= 2.76 gal.											
<b>Groundwater Purge Data</b>											
Purge Method:	Standard Purge	Purge Equipment: Sample Truck	Pump Id: Sample Truck								
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
3.57	1502										
4.39	1505	0.05	95.8	0.15	8.68	4322	375.6	26.27	0.17	-63.1	
4.55	1508	0.05	95.8	0.30	8.58	3935	208.7	26.60	0.22	-63.1	
4.75	1511	0.05	95.8	0.45	8.24	3070	91.9	27.57	0.28	-47.0	
5.03	1515	0.05	95.8	0.65	7.96	2900	54.6	29.12	0.31	-35.1	
5.50	1520	0.05	95.8	0.90	7.82	2738	20.1	30.32	0.37	-23.7	
6.00	1525	0.05	95.8	1.15	7.86	2428	50.6	30.79	0.37	-28.0	
6.38	1530	0.10	95.8	1.65	7.94	2887	104.7	31.30	0.39	-40.3	
	1535	0.10	95.8	2.15	—	—	—	—	—	—	DRY
5.00	1600	BAILER SAMPLE —				—	—	—	—	—	
											80% = 4.95
											Gallons = ml's/3781
											Sample Rate: Bailer
											Total Casing Volumes Removed: 2.34
											Total Gallons Removed: 2.15

Sample ID.(time): MW-15 (1600) Dup ID.: Dup1-080305 (1615) Rinsate ID.: ( )

Analytical Methods: 4260 B, TPHg, BTEX, FUEL OXYGENATES Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-17	Date: 8/4/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 5.51	Total Well Depth: 9.8	Water Column Height (H): 4.29	Top of Casing Elevation: 9.41								
Gauging Time: 0807		Casing diameter (D) = 2.4 in. 1 casing volume = $(D^2)(H)/0.0408 = 0.7$ gal 3 casing volumes = 2.1 gal.									
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge				Purge Equipment: Sample Truck					Pump Id: Sample Truck		
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
5.34	0809	0.05	96.6	—	—	—	—	—	—	—	—
5.78	0811	0.05	96.6	0.10	8.18	4674	48.0	23.60	0.89	-216.5	clear, colorless
5.88	0813	0.05	96.6	0.20	8.38	4120	43.4	23.55	0.91	-224.8	" "
6.00	0815	0.05	96.6	0.30	8.30	3575	41.1	23.17	0.82	-216.8	" "
6.14	0817	0.05	96.6	0.40	8.27	3214	38.5	23.51	0.83	-214.8	" "
6.38	0821	0.05	96.6	0.60	8.26	2952	25.2	24.33	0.89	-215.2	" "
7.05	0825	0.15	96.6	1.20	8.35	2881	10.6	27.12	1.04	-227.7	↑ Purge rate
7.43	0827	0.15	96.6	1.50	8.54	2909	10.6	26.86	1.20	-237.3	clear, colorless
7.71	0828	0.15	96.6	1.65	8.57	2941	13.2	26.70	1.47	-238.8	" "
DRY	0829	0.15	96.6	1.80	—	—	—	—	—	—	DRY
6.4	0940	BAILER SAMPLE ——————									
$80\% = 6.4 \text{ FT BTOL}$											
Gallons = ml's/3781											
Sample Rate: BAILER											
Total Casing Volumes Removed: 2+											
Total Gallons Removed: 1.80											

Sample ID.(time): MW-17 (0940) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260 B: TPHg, BTEX, fuel oxygenates Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number:	MW-18	Date:	8/4/05	Project: POINT MUGU			Project No. 29868489										
<b>Gauging Data from Top of Casing (Reference Point)</b>																	
Depth to Water: 5.09		Total Well Depth: 9.90		Water Column Height (H): 4.81			Top of Casing Elevation: 9.23										
<b>Gauging Time: 0702 Casing diameter (D)= 2 in. 1 casing volume= <math>(D^2)(H)(0.0408) = 0.78</math> gal 3 casing volumes= 2.4 gal.</b>																	
<b>Groundwater Purge Data</b>																	
Purge Method: Standard Purge					Purge Equipment: Sample Truck				Pump Id: Sample Truck								
Depth to Water	Time	(gpm) Purge Rate	Hz	(gal) Vol. Removed	pH (Units)	Specific Conductivity ( $\mu$ S/cm)	Turbidity (NTU)	Temp. ( $^{\circ}$ C)	DO (mg/L)	ORP (mV)	Remarks						
4.95	0705	0.05	—	—	—	—	—	—	—	—	—						
5.30	0707	0.05	96.6	0.10	8.25	5972	187.0	21.85	0.73	-224.2	cloudy, colorless						
5.38	0709	0.05	96.6	0.20	8.26	5952	126.7	21.90	0.69	-229.1	" "						
5.43	0711	0.05	96.6	0.30	8.22	5902	77.8	22.50	0.74	-227.6	" "						
5.59	0717	0.05	96.6	0.60	8.15	5895	18.6	24.50	1.03	-227.1	" "						
5.70	0725	0.05	96.6	1.00	8.13	5888	18.0	25.80	1.15	-227.8	" "						
5.74	0731	0.05	96.6	1.30	8.15	5836	6.7	26.51	1.08	-228.1	" "						
5.82	0752	0.05	96.6	2.35	8.21	5935	3.8	26.50	1.25	-229.4	" "						
5.83	0753	0.05	96.6	2.40	8.21	5935	3.6	26.49	1.16	-229.2	" "						
5.84	0754	0.05	96.6	2.45	8.21	5936	4.9	26.49	1.15	-229.1	purge complete						
	0755	0.05	—	—	—	—	—	—	—	—	sample						
											80% = 6.1 FT BTOC						
											Gallons = ml's/3781						
											Sample Rate: 0.05						
											Total Casing Volumes Removed: 3						
											Total Gallons Removed: 2.45						

Sample ID.(time): MW-18 (0755) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260B: TPH<sub>g</sub>, BTEX, fuel oxygenates Sampler: BKP



## **Groundwater Monitoring Program Gauging Log & Development / Sampling Log**

Sample ID.(time): MW-20 (180) Dup ID.: ( ) Rinsate ID.: ( )

Analytical Methods: 8260 B, TPH<sub>g</sub>, BTEX, FUEL OXYGENATES Sampler: BKP

# **Groundwater Monitoring Program**

## **Gauging Log & Development / Sampling Log**

Sample ID.(time): MW-21 (1742) Dup ID.: \_\_\_\_\_ ( ) Rinsate ID.: \_\_\_\_\_ ( )

Analytical Methods: 8260 B, TPH<sub>g</sub>, BTEX, FUEL OXYGENATES Sampler: DKP

# **Groundwater Monitoring Program**

## **Gauging Log & Development / Sampling Log**

Well Number: MW-23		Date: 8-2-05	Project: POINT MUGU			Project No. 29868489						
Gauging Data from Top of Casing (Reference Point)												
Depth to Water: 6.26		Total Well Depth: 9.8			Water Column Height (H): 3.54			Top of Casing Elevation: 9.50				
Gauging Time: 1453		Casing diameter (D) = 2.5 in.			1 casing volume = $(D^2)(H)(0.0408) = 0.58$ gal 3 casing volumes = 1.73 gal.							
Groundwater Purge Data												
Purge Method: Standard Purge					Purge Equipment: Sample Truck				Pump Id: Sample Truck			
Depth to Water	Time	(gpm) Purge Rate	Hz	(gal) Vol. Removed	pH (Units)	Specific Conductivity ( $\mu$ S/cm)	Turbidity (NTU)	Temp. ( $^{\circ}$ C)	DO (mg/L)	ORP (mV)	Remarks	
6.30	1458	0.05 gpm	97.7	0.1 gal	8.08	4920	73.3	27.19	0.81	-42.7		
6.30	1502	0.05 gpm	99.7	0.3 gal	7.82	4262	66.3	26.35	1.11	-40.5	clear, colorless	
6.30	1506	0.05	99.6	0.5 gal	7.66	3904	36.4	27.23	0.70	-45.0	" "	
6.30	1510	0.05	99.6	0.7 gal	7.50	3620	23.8	28.36	0.68	-34.9	" "	
6.30	1512	0.10 gpm	99.6	0.9 gal	7.44	3403	18.7	28.90	0.67	-28.5		
6.30	1514	0.15 gpm	99.6	1.2 gal	7.32	2832	10.8	29.16	0.70	-12.0		
6.31	1516	0.20 gpm	99.6	1.6 gal	7.18	2596	5.5	28.08	0.62	16.2		
6.31	1518	0.20 gpm	99.6	1.8 gal	7.08	2582	5.2	28.79	0.60	18.4		
6.31	1520	0.20 gpm	99.6	2.0 gal	7.12	2572	5.0	28.04	0.57	19.2		
											Gallons = ml's/3781	
											Sample Rate: 100 ml/min	
											Total Casing Volumes Removed: 34	
											Total Gallons Removed: 2.0 gal	

Sample ID.(time): Mw-23 (1526) Dup ID.: Dup1-080205 (1200) Rinsate ID.: E31-080205 (1530)

**Analytical Methods:** JC Sampler:

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-23X	Date: 8-2-05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 6.29	Total Well Depth: 9.7	Water Column Height (H): 3.48	Top of Casing Elevation: 9.91								
Gauging Time: 1549	Casing diameter (D) = 2 in.	1 casing volume = $(D^2)(H)(0.0408) = 0.57$ gal	3 casing volumes = 1.7 gal.								
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge											
Purge Equipment: Sample Truck											
Pump Id: Sample Truck											
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
6.08	1552	0.05 gpm	96.2	0.1 gal	7.44	4363	27.9	25.50	1.47	-3.4	
6.43	1554	0.05 gpm	96.2	0.2 gal	7.49	4697	26.1	25.47	1.38	-12.1	
6.60	1556	0.05 gpm	96.2	0.3 gal	7.62	5367	23.8	25.50	1.01	-27.1	
6.88	1559	0.05 gpm	96.2	0.45 gal	7.47	5010	22.3	26.63	0.82	-19.4	
7.06	1601	0.05 gpm	96.2	0.55 gal	7.33	4316	17.3	27.53	0.81	3.2	
8.20	1603	0.20 gpm	96.2	0.95 gal	7.10	3732	8.3	28.45	0.35	20.7	
8.39	1605	0.20 gpm	96.2	1.35 gal	7.10	3825	9.7	27.83	0.41	18.7	Pumped well dry sample at 80% or 3 hrs
6.90	BAL	102 sample at 1650									
											Gallons = ml's/3781
											Sample Rate: 3 ml/sec
											Total Casing Volumes Removed: 2+
											Total Gallons Removed: 1.35

Sample ID.(time): MW-23X (1650) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260B TPH<sub>g</sub>, BTEX, & fuel oxygenates Sampler: BP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number:	MW-25	Date:	8/3/05	Project:	POINT MUGU	Project No.	29868489				
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 5.67		Total Well Depth: 14.08	Water Column Height (H): 8.41	Top of Casing Elevation: 10.26							
Gauging Time: 800		Casing diameter (D) = 2 in.	1 casing volume = $(D^2)(H)(0.0408)$ = 1.37 gal	3 casing volumes = 4.12 gal.							
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge				Purge Equipment: Sample Truck				Pump Id:	Sample Truck		
Depth to Water	Time	(gpm) Purge Rate	Hz	(gal) Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
5.91	808	0.027	92.5	0.00	8.52	28974	38.8	18.88	20.66	-36.9	clear, + brown
5.98	811	0.057	92.5	0.15	9.10	25465	38.7	18.89	0.41	-57.4	" "
5.605	815	0.05	92.5	0.32	9.04	19480	36.5	19.10	0.22	-66.3	" , colorless
6.27	819	0.05	92.5	0.55	8.79	15681	24.1	19.72	0.19	-61.9	" "
6.50	824	0.05	92.5	0.80	8.63	14468	21.0	20.15	0.17	-58.4	" "
6.80	830	0.05	92.5	1.10	8.43	13050	19.8	20.79	0.16	-51.8	" "
7.62	834	0.15	92.5	1.70	8.34	7676	8.5	21.28	0.16	-49.6	↑ purge rate (clear, colorless)
7.88	838	0.15	92.5	2.30	8.26	8195	6.2	20.75	0.13	-48.3	+ clear, color
8.15	842	0.15	92.5	2.90	8.26	8502	5.4	20.52	0.10	-54.1	" "
8.56	846	0.15	92.5	3.5	8.26	8685	5.2	20.46	0.09	-54.9	" "
9.30	851	0.15	92.5	4.25	8.19	9300	5.6	20.6	0.08	-54.2	" "
7.2	0945	BAILER	SAMPLE								80% = 7.4 FT BTOL
											Gallons = ml's/3781
											Sample Rate: Bailer
											Total Casing Volumes Removed: 3+
											Total Gallons Removed: 4.25

Sample ID.(time): MW-25 (0945) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260 B TPHg, BTEX, FUEL OXYGENATES Sampler: BKT

## Groundwater Monitoring Program Gauging Log & Development / Sampling Log

Well Number: MW-26	Date: 8/3/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 3.50	Total Well Depth: 9.85	Water Column Height (H): 6.35	Top of Casing Elevation: 8.64								
Gauging Time: 922	Casing diameter (D)= 2 in.	1 casing volume= $(D^2)(H)(0.0408) = 1.04$ gal	3 casing volumes= 3.11 gal.								
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge	Purge Equipment: Sample Truck	Pump Id: Sample Truck									
Depth to Water	Time	(gpm) Purge Rate	Hz	(gal) Vol. Removed	pH (Units)	Specific Conductivity ( $\mu$ S/cm)	Turbidity (NTU)	Temp. ( $^{\circ}$ C)	DO (mg/L)	ORP (mV)	Remarks
3.35	926	—	—	—	—	—	—	—	—	—	—
3.67	928	0.05	95.8	0.10	8.08	13437	4.8	21.04	1.70	-14.1	cloudy, colorless
3.85	932	0.05	95.8	0.30	8.07	12325	378.9	21.96	0.30	1.6	" "
4.00	936	0.05	95.8	0.50	7.88	7208	149.4	22.75	0.29	13.8	" "
4.04	942	0.05	95.8	0.70	7.83	8331	230.4	23.15	0.97	19.1	Pump off for 2 min.
4.20	946	0.05	95.8	0.90	7.81	6950	92.8	24.07	0.48	23.6	clear, colorless
4.35	950	0.05	95.8	1.15	7.75	6678	29.5	24.89	0.35	30.1	" "
4.47	954	0.05	95.8	1.35	7.75	6959	20.3	25.43	0.29	33.0	" "
5.02	1000	0.15	95.8	2.10	7.77	4256	17.2	25.97	0.23	34.6	↑ Purge rate: clear, colorless
5.35	1002	0.15	95.8	2.40	7.72	4404	18.0	25.71	0.19	39.7	" "
5.56	1004	0.15	95.8	2.70	7.70	4522	14.3	25.64	0.23	42.5	
5.88	1007	0.15	95.8	3.15	7.67	4682	10.9	25.47	0.23	45.9	— purge complete
5.97	1008	0.15	95.8	3.30	7.66	4699	10.4	25.40	0.23	46.8	80% = 4.8 FT BTOL
6.03	1009	0.15	95.8	3.45	7.65	4771	10.1	25.28	0.23	48.0	complete purge Gallons = ml's/3781
											Sample Rate: BAIKER
4.75	1045	BAI LER	SAMPLE	—	—	—	—	—	—	—	Total Casing Volumes Removed: 3+
											Total Gallons Removed: 3.45

Sample ID.(time): MW-26 (1045) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260 B; TPH<sub>3</sub>, BTEX, FUEL OXYGENATES Sampler: BKP

## Groundwater Monitoring Program Gauging Log & Development / Sampling Log

Well Number: MW-27	Date: 8/3/05	Project: POINT MUGU	Project No. 29868489								
Gauging Data from Top of Casing (Reference Point)											
Depth to Water: 2.88	Total Well Depth: 8.22	Water Column Height (H): 5.34	Top of Casing Elevation: 8.84								
Gauging Time: 1135	Casing diameter (D)= 2 in.	1 casing volume= $(D^2)(H)(0.0408) = 0.87$ gal 3 casing volumes= 2.61 gal.									
Groundwater Purge Data											
Purge Method: Standard Purge			Purge Equipment: Sample Truck	Pump Id: Sample Truck							
Depth to Water	Time	(gpm) Purge Rate	Hz	(gal) Vol. Removed	pH (Units)	Specific Conductivity ( $\mu$ S/cm)	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
2.49	1140	0.05	97.0	—	—	1312	200.0	24.01	1.77	63.9	
3.45	1142	0.05	97.0	0.10	7.78	1242	230.7	24.06	1.57	70.9	clear, brown
3.46	1146	0.05	97.0	0.30	7.63	1242	230.7	24.06	1.57	70.9	" "
3.48	1150	0.05	97.0	0.50	7.55	1241	306.7	25.59	1.48	73.1	" "
3.52	1154	0.05	97.0	0.70	7.53	1242	256.2	26.42	1.38	74.0	" "
3.68	1156	0.10	97.0	0.90	7.53	1240	105.1	27.14	1.08	73.9	" "
3.80	1200	0.10	97.0	1.30	7.52	1235	51.8	26.60	0.95	73.5	" "
3.90	<sup>1206</sup> <del>1204</del>	0.10	97.0	<sup>(B)</sup> <del>1.90</del>	7.52	1230	28.3	26.33	0.73	73.4	" "
3.95	1210	0.10	97.0	2.3	7.53	1230	24.1	26.43	0.65	72.5	" "
3.98	<sup>1212</sup> <del>1214</del>	0.10	97.0	<sup>(B)</sup> <del>2.7</del> <sub>2.5</sub>	7.53	1230	24.5	26.40	0.63	72.2	" "
4.00	1214	0.10	97.0	2.7	7.53	1230	24.6	26.41	0.63	72.0	Purge complete
											80% = 4.0 FT BTOC
											Gallons = ml's/3781
											Sample Rate: <del>0.1</del> <sup>AN</sup>
											Total Casing Volumes Removed: <del>2.7</del> <sup>AN</sup> 3.1
											Total Gallons Removed: 2.7

Sample ID.(time): MW-27 (1215) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 9260 B: TPH<sub>g</sub>, BTEX, FUEL OXYGENATES Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-31	Date: 8/4/05	Project: POINT MUGU				Project No. 29868489					
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 4.50		Total Well Depth: 15.0			Water Column Height (H): 10.5		Top of Casing Elevation: 8.93				
Gauging Time: 10 14		Casing diameter (D) = 2 in.			1 casing volume = $(D^2)(H)(0.0408) = 1.7$ gal. 3 casing volumes = <u>5.1</u> gal.						
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge					Purge Equipment: Sample Truck				Pump Id: Sample Truck		
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
4.49	1022	0.25	98.5	<u>96.5</u>	<u>8.14</u>	<u>7829</u>	<u>53.3</u>	<u>23.13</u>	<u>0.33</u>	<u>-200.2</u>	clear, colorless
4.81	1024	0.25	98.5	0.5	8.14	7547	164.9	23.66	0.67	-207.9	" "
4.85	1026	0.25	98.5	1.0	8.23	6942	192.5	24.25	0.80	-213.1	" "
4.89	1028	0.25	98.5	1.5	8.34	6836	81.3	24.56	0.83	-215.4	" "
4.91	1030	0.25	98.5	2.0	8.42	6785	39.4	24.79	0.83	-214.5	" "
4.96	1032	0.25	98.5	2.5	8.46	6753	27.1	24.86	0.79	-213.5	" "
5.01	1034	0.25	98.5	3.0	8.48	6710	14.4	25.04	0.76	-211.8	" "
5.05	1036	0.25	98.5	3.5	8.51	6693	11.2	25.08	0.73	-209.7	" "
5.11	1038	0.25	98.5	4.0	8.52	6678	9.2	25.13	0.64	-207.3	" "
5.17	1040	0.25	98.5	4.5	8.52	6662	7.8	25.10	0.42	-203.9	" "
5.26	1042	0.25	98.5	5.0	8.51	6653	7.3	25.12	0.44	-202.1	" "
5.38	1043	0.25	98.5	5.25	8.51	6656	7.0	25.18	0.43	-201.3	$80\% = 6.6 \text{ FT BTOT}$
											Gallons = ml's/3781
1045	SAMPLE										Sample Rate: 0.05
											Total Casing Volumes Removed: 3+
											Total Gallons Removed: 5.5

Sample ID.(time): MW-31 (1045) Dup ID.: ( ) Rinsate ID.: ( )

Analytical Methods: 8260 B: TPH<sub>g</sub>, BTEX, fuel oxygenates Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-32	Date: 8/4/05	Project: POINT MUGU	Project No. 29868489									
<b>Gauging Data from Top of Casing (Reference Point)</b>												
Depth to Water: 7.84	Total Well Depth: 15.0	Water Column Height (H): 7.16	Top of Casing Elevation: 10.26									
Gauging Time: 1109		Casing diameter (D) = 2 in.	1 casing volume = $(D^2)(H)(0.0408)$ <del><math>\frac{(\pi)}{4} \cdot 1.17</math></del> gal. 3 casing volumes = 3.5 gal.									
<b>Groundwater Purge Data</b>												
Purge Method:	Standard Purge					Purge Equipment: Sample Truck				Pump Id: Sample Truck		
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks	
7.41	1113	0.25	95.5	—	—	—	—	—	—	—	—	
8.74	1115	0.25	95.5	0.50	9.19	31606	11.4	21.63	0.12	-179.4	clear, colorless	
9.06	1117	0.25	95.5	1.00	8.22	31225	11.9	21.72	0.20	-179.6	clear, colorless	
9.53	1119	0.25	95.5	1.50	8.24	30405	5.5	22.00	0.48	-180.9	" "	
9.73	1123	0.05	95.5	1.70	8.26	30390	4.4	22.25	0.49	-183.4	" "	
9.96	1127	0.05	95.5	1.90	8.27	30515	4.8	22.26	0.45	-184.0	" "	
10.41	1129	0.25	95.5	2.40	8.23	31207	5.6	24.00	0.52	-181.9	" "	
11.08	1131	0.25	100.7	2.90	8.22	31126	4.1	24.37	0.51	-182.3	" "	
11.38	1132	0.25	100.7	3.15	8.25	31196	3.7	23.70	0.54	-184.9	" "	
11.64	1133	0.25	100.7	3.40	8.31	31372	3.5	23.16	0.48	-192.7	" "	
11.89	1134	0.25	100.7	3.65	8.35	31444	3.4	23.06	0.46	-197.1	" "	
											complete purge	
—	1340	BAILER SAMPLE —					$80\% = 9.3 \text{ FT BT0 C}$					
Gallons = ml's/3781												
Sample Rate: BAILER												
Total Casing Volumes Removed: 3+												
Total Gallons Removed: 3.65												

Sample ID.(time): MW-32 (1340) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: 8260B: TPHg, BTEX, Fuel Oil, TKN, AMMONIA, Metals, Ferric iron, sulfate, NO<sub>2</sub>, NO<sub>3</sub>, Alk, TDS, Cl, F, Sampler: BK1  
or phosphate, P, sulfide

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number:	MW-33	Date:	8/4/05	Project: POINT MUGU			Project No. 29868489				
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water:		6.61		Total Well Depth: 15.0		Water Column Height (H): 8.39		Top of Casing Elevation: 9.85			
Gauging Time:		1432		Casing diameter (D) = 2 in.		1 casing volume = $(D^2)(H)(0.0408)$ = 1.4 gal		3 casing volumes = 4.1 gal.			
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge					Purge Equipment: Sample Truck				Pump Id: Sample Truck		
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. ( $^{\circ}\text{C}$ )	DO (mg/L)	ORP (mV)	Remarks
6.48	1435	0.1	93.2	—	—	—	—	—	—	—	—
6.91	1437	0.1	93.2	0.2	7.98	29000	35.3	25.00	0.48	-194.6	clear, colorless
7.30	1441	0.1	93.2	0.6	8.27	20054	17.8	25.22	1.11	-196.5	" "
7.72	1445	0.1	93.2	1.0	8.63	12584	12.4	26.00	1.19	-232.6	" "
8.19	1449	0.1	93.2	1.4	8.58	9806	9.3	26.92	1.25	-225.0	" "
8.55	1451	0.1	93.2	1.6	8.50	10185	7.8	27.28	1.30	-222.2	" "
9.05	1453	0.2	93.2	2.0	8.51	8579	5.6	27.69	1.37	-221.2	↑ purge rate
9.31	1455	0.2	93.2	2.4	8.55	6686	3.6	27.58	1.45	-219.0	colorless, clear
9.71	1457	0.2	93.2	2.8	8.59	6587	3.4	27.51	1.47	-223.3	" "
9.99	1459	0.2	93.2	3.2	8.66	7120	3.4	27.61	1.40	-231.8	" "
10.15	1501	0.2	93.2	3.6	8.69	7612	3.3	27.56	1.38	-235.0	" "
10.36	1503	0.2	93.2	4.0	8.71	7842	3.6	27.69	1.40	-239.2	
10.62	1504	0.2	93.2	4.2	8.70	8135	4.0	28.01	1.40	-241.8	$30\% = 8.3 \text{ FT BTOC}$
											Gallons = ml's/3781
											Sample Rate:
											Total Casing Volumes Removed: 3+
											Total Gallons Removed: 4.2

Sample ID.(time): MW-33 ( ) Dup ID.: ( ) Rinsate ID.: ( )

Analytical Methods: 8260 B = TP Hg, BTEX, fuel oxygenate Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: <b>MW-34</b>	Date:	Project: <b>POINT MUGU</b>			Project No. <b>29868489</b>						
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water:		Total Well Depth:		Water Column Height (H):			Top of Casing Elevation: <b>8.74</b>				
Gauging Time:		Casing diameter (D)= <b>4</b> in.		1 casing volume= <b>(D<sup>2</sup>)(H)(0.0408)=</b>			gal 3 casing volumes= <b>gal.</b>				
<b>Groundwater Purge Data</b>											
Purge Method: <b>Standard Purge</b>				Purge Equipment: <b>Sample Truck</b>				Pump Id: <b>Sample Truck</b>			
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
<b>DAMAGED</b>											
											Gallons = ml's/3781
											Sample Rate:
											Total Casing Volumes Removed:
											Total Gallons Removed:

Sample ID.(time): \_\_\_\_\_ ( ) Dup ID.: \_\_\_\_\_ ( ) Rinsate ID.: \_\_\_\_\_ ( )

Analytical Methods: \_\_\_\_\_ Sampler: \_\_\_\_\_

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: MW-35	Date: 8/4/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 6.66	Total Well Depth: <del>13.6</del> 13.6	Water Column Height (H): 6.94	Top of Casing Elevation: 9.96								
Gauging Time: 1150	Casing diameter (D) = 4 in.	1 casing volume = $(D^2)(H)(0.0408) = 4.53$ gal	3 casing volumes = 13.6 gal.								
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge				Purge Equipment: Sample Truck					Pump Id: Sample Truck		
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
6.55	1152	0.05	95.7	—	—	—	—	—	—	—	—
6.91	1154	0.05	95.7	0.10	8.31	21904	21.8	20.51	0.29	-203.2	clear, colorless
7.05	<del>1153</del> 1200	0.05	95.8	0.30	8.28	20160	23.7	20.40	0.56	-202.9	" "
7.26	1204	0.05	95.8	0.60	8.23	18241	11.6	21.72	0.71	-207.5	" "
7.85	1208	0.25	95.8	<del>1.60</del> 8.43	8.43	15201	8.5	21.48	0.75	-227.8	" ↑ rate
8.43	1212	0.25	95.8	<del>4.60</del> 8.60	8.60	13034	6.2	20.87	0.81	-249.2	" "
9.07	1216	0.25	95.8	<del>6.60</del> 8.57	8.57	11501	6.0	20.52	0.89	-248.3	" "
9.71	1220	0.25	95.8	<del>8.60</del> 8.41	8.41	11253	4.6	20.46	0.80	-236.7	" "
10.19	1224	0.25	95.8	<del>10.60</del> 8.33	8.33	12077	4.9	20.64	0.94	-230.1	" "
10.40	1226	0.25	95.8	<del>12.60</del> 8.30	8.30	12300	4.6	20.76	0.90	-228.0	" "
10.61	1228	0.25	95.8	7.60	8.26	12590	4.6	20.99	0.97	-224.8	" "
—	1230	0.25	95.6	9.60	—	—	—	—	—	—	DRY
											80% = 8.0 FT BTOP
	1420	BAILER SAMPLE			—	—	—	—	—	—	Gallons = ml's/3781
											Sample Rate: BAILER
											Total Casing Volumes Removed: 24
											Total Gallons Removed: 9.60

Sample ID.(time): MW-35 (1420) Dup ID.: ( ) Rinsate ID.: ( )

Analytical Methods: 4260 B: TPH<sub>g</sub>, BTEX, Fuel oxygenates Sampler: BKP

# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number:	MW-36	Date:	8-2-05	Project: POINT MUGU			Project No. 29868489				
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water:		5.15	Total Well Depth:	13.62	Water Column Height (H):	8.47	Top of Casing Elevation: 10.67				
Gauging Time:		9/11	Casing diameter (D)=	4 in.	1 casing volume=	$(D^2)(H)(0.0408) = 5.53$	gal	3 casing volumes=	16.59 gal.		
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge					Purge Equipment: Sample Truck				Pump Id: Sample Truck		
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
5.22	0916	0.25gpm	77.5	0.5 gal	7.27	1405	7.9	20.90	0.71	124.1	
5.24	0918	0.25gpm	77.5	1.0 gal	7.17	1441	6.2	20.92	13.5	124.2	
5.21	0922	0.25gpm	85.3	2.0 gal	7.14	1424	7.6	20.58	7.9	124.6	
5.57	0924	0.5 gpm	103.0	3.0 gal	7.11	1682	74.8	21.06	0.28	124.7	
6.00	0926	0.5gpm	102.8	4.0 gal	7.00	1236	12.8	20.40	0.09	126.4	
6.48	0928	0.5gpm	103.0	5.0 gal	6.94	1067	5.4	20.36	0.06	126.4	
6.81	0930	0.5gpm	103.0	6.0 gal	6.92	1034	3.3	20.48	0.10	126.4	
7.05	0932	0.5gpm	103.0	7.0 gal	6.89	1029	2.5	20.67	0.21	126.5	
7.16	0934	0.35gpm	103.0	7.7 gal	6.89	1061	1.8	20.86	0.21	126.2	
7.14	0938	0.25gpm	91.3	8.7 gal	6.91	1078	0.7	20.95	0.18	124.7	
7.14	0942	0.25gpm	91.3	9.7 gal	6.93	1117	0.1	20.94	0.13	122.8	
7.16	0948	0.25gpm	91.3	11.2 gal	6.95	1137	0.0	20.94	0.08	121.7	
6.61	0953	0.25gpm	90.2	13.2 gal	6.95	1163	1.0	21.17	0.14	122.6	
6.62	1007	0.20gpm	90.2	15.0 gal	6.96	1149	0.0	21.26	0.08	120.3	Gallons = ml's/3781
6.63	1011	0.20gpm	90.2	15.8 gal	6.99	1137	0.0	21.37	0.08	120.3	Sample Rate:
6.63	1016	0.20gpm	90.2	16.8 gal	7.01	1144	0.0	21.45	0.07	119.5	Total Casing Volumes Removed:
											Total Gallons Removed:

Sample ID.(time): MWU-36 (1020) Dup ID.: ( ) Rinsate ID.: ( ) ( )

Analytical Methods: B260B TPH<sub>2</sub> BTEX & fuel oil & Bio Attenuation samples Sampler: JL/AN



# Groundwater Monitoring Program

## Gauging Log & Development / Sampling Log

Well Number: EW-43	Date: 8/4/05	Project: POINT MUGU	Project No. 29868489								
<b>Gauging Data from Top of Casing (Reference Point)</b>											
Depth to Water: 6.37	Total Well Depth: 14.5	Water Column Height (H): 8.13	Top of Casing Elevation: 9.96								
Gauging Time: 12:47	Casing diameter (D)= 2 in.	1 casing volume= $(D^2)(H)(0.0408) = 1.3$ gal	3 casing volumes= 4.0 gal.								
<b>Groundwater Purge Data</b>											
Purge Method: Standard Purge	Purge Equipment: Sample Truck	Pump Id: Sample Truck									
Depth to Water	Time	Purge Rate	Hz	Vol. Removed	pH (Units)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	Turbidity (NTU)	Temp. (°C)	DO (mg/L)	ORP (mV)	Remarks
5.91	1251	0.05	96.8								
7.31	1253	0.05	96.9	0.10	8.05	10930	90.1	21.65	0.57	-191.7	clear, colorless
7.28	1255	0.05	97.0	0.20	8.05	8173	80.9	22.02	1.07	-192.3	" "
7.31	1257	0.05	97.0	0.30	8.03	7380	65.5	22.31	1.13	-191.7	" "
7.95	1259	0.15	97.0	0.60	8.02	6583	29.6	23.90	1.31	-192.6	↑ purge rate
8.32	1301	0.10	97.0	0.80	8.04	5931	33.8	24.61	1.38	194.5	↓ " "
9.15	1303	0.20	97.0	1.20	7.99	6068	36.5	25.35	0.98	-187.4	↑ " "
9.81	1305	0.20	97.0	1.60	7.98	6395	30.7	25.42	0.75	-187.4	clear, colorless
10.30	1309	0.20	97.0	2.40	8.09	7400	20.9	25.61	0.81	-192.3	" "
11.27	1313	0.20	97.0	3.20	8.23	8055	16.3	25.79	0.98	-201.4	" "
11.53	1315	0.20	100.4	3.60	8.17	7978	15.9	25.52	0.79	-192.1	" "
11.61	1316	0.20	100.4	3.80	8.08	8020	18.9	25.38	0.86	-183.3	" "
11.66	1317	0.20	100.4	4.00	8.11	8492	19.1	25.38	0.83	-185.3	$80\% = 8.0 \text{ FT BTOC}$
11.68	1318	0.20	100.4	4.20	8.13	8745	19.1	25.41	0.76	-186.5	Gallons = ml's/3781
7.00	1405	BAILER		sampfed w/pump							Sample Rate: BAILER
											Total Casing Volumes Removed: 3+
											Total Gallons Removed: 4.20

Sample ID.(time): EW-43 (1405) Dup ID.: ( ) Rinsate ID.: ( )

Analytical Methods: 8260 B = PHg, BTEX, fuelox, TKN, ammonia, metals, ferrous iron, sulfate, NO<sub>3</sub>, NO<sub>2</sub>, Alk Sampler: BKP  
TDS

**APPENDIX C**

**GROUNDWATER LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS**



**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water

**AA Project No.:** A32126  
**Date Received:** 08/02-4/05

### Case Narrative

On August 2 - 4, 2005 American Analytics received 37 water samples in 3 coolers. Cooler one was at 5°C, Cooler two was at 5°C and Cooler three was at 4°C. The containers were in good condition. All the samples were analyzed by EPA method 8260B for TPH as Gasoline as well as for BTEX/Oxygenates. In addition, three of the samples were analyzed for the following parameters: TKN, Ammonia, Metals, Alkalinity TDS, Methane, Ferrous Iron, Sulfate, Nitrate, Nitrite, Chloride, Fluoride, Total Phosphorous, Sulfide and Ion Balance.

The following analyses were subcontracted to a ELAP accredited laboratory (American Environmental Testing Laboratory Inc.): Bromide, TKN and Total Phosphorous. Their reports are located at the end of this submittal.

*Eydie Schwartz*

Eydie Schwartz  
Project Manager

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Metals Raw Data	Pg. 381 - 424
Inorganic Parameters Analytical Data	Pg. 425 - 476
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## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Zinc

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<b>0.026</b>	0.02
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.028</b>	0.02
190714	EW-43	08/04/05	08/05/05	1.0	<b>0.02</b>	0.02

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Iron

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<b>0.096J</b>	0.2
190713	MW-32	08/04/05	08/05/05	1.0	<b>12</b>	0.2
190714	EW-43	08/04/05	08/05/05	1.0	<b>18</b>	0.2

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** EPA 340.2 (Fluoride)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/05/05	1.0	<b>1.7</b>	0.1
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.19</b>	0.1
190714	EW-43	08/04/05	08/05/05	1.0	<0.1	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Manganese

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<b>0.52</b>	0.05
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.75</b>	0.05
190714	EW-43	08/04/05	08/05/05	1.0	<b>2.2</b>	0.05

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Phosphorous (EPA 365.2)\*

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	1.0	<b>0.19</b>	0.1
190713	MW-32	08/04/05	08/08/05	1.0	<b>2.2</b>	0.1
190714	EW-43	08/04/05	08/08/05	1.0	<b>3.2</b>	0.1

MRL: Method Reporting Limit      J: Estimated Value

\*: Subcontracted to a DOHS State-Certified Laboratory

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ferrous Iron (SM3500)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.1	0.1
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.56</b>	0.1
190714	EW-43	08/04/05	08/05/05	1.0	<b>12</b>	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Dissolved Methane (RSK175M)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/11/05	1.0	<2	2
190713	MW-32	08/04/05	08/17/05	5.0	40	2
190714	EW-43	08/04/05	08/17/05	10.0	87	2

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrate as N (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.1	0.1
190713	MW-32	08/04/05	08/05/05	10.0	<1	0.1
190714	EW-43	08/04/05	08/05/05	10.0	<1	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfate (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	50.0	150	0.5
190713	MW-32	08/04/05	08/05/05	5,000.0	6700	0.5
190714	EW-43	08/04/05	08/05/05	1,000.0	1500	0.5

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** EPA 160.1 (Total Diss. Solids)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	2.0	<b>780</b>	10
190713	MW-32	08/04/05	08/08/05	20.0	<b>20000</b>	10
190714	EW-43	08/04/05	08/08/05	20.0	<b>6800</b>	10

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrite as N (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.1	0.1
190713	MW-32	08/04/05	08/05/05	10.0	<b>23</b>	0.1
190714	EW-43	08/04/05	08/05/05	10.0	<1	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Chloride (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	50.0	<b>41</b>	0.5
190713	MW-32	08/04/05	08/05/05	5,000.0	<b>17000</b>	0.5
190714	EW-43	08/04/05	08/05/05	1,000.0	<b>1700</b>	0.5

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfide (EPA 376.2)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.05	0.05
190713	MW-32	08/04/05	08/05/05	1.0	<0.05	0.05
190714	EW-43	08/04/05	08/05/05	1.0	<0.05	0.05

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ion Balance

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** % Diff.

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/22/05	1.0	<b>-4.42</b>	0.01
190713	MW-32	08/04/05	08/22/05	1.0	<b>21.66</b>	0.01
190714	EW-43	08/04/05	08/22/05	1.0	<b>-1.87</b>	0.01

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ammonia Nitrogen (EPA 350.3)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/05/05	1.0	<b>3.2</b>	0.1
190713	MW-32	08/04/05	08/05/05	1.0	<b>26</b>	0.1
190714	EW-43	08/04/05	08/05/05	1.0	<b>8.7</b>	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** TKN (EPA 351.3)\*

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	1.0	<b>0.15</b>	0.1
190713	MW-32	08/04/05	08/08/05	1.0	<b>3.1</b>	0.1
190714	EW-43	08/04/05	08/08/05	1.0	<b>2.6</b>	0.1

MRL: Method Reporting Limit      J: Estimated Value

\*: Subcontracted to a DOHS State-Certified Laboratory

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Alkalinity (SM2320B)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	1.0	<b>425</b>	2
190713	MW-32	08/04/05	08/08/05	1.0	<b>1955</b>	2
190714	EW-43	08/04/05	08/08/05	1.0	<b>1480</b>	2

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Bromide (EPA 300.0)\*

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/09/05	1.0	<b>0.22</b>	0.1
190713	MW-32	08/04/05	08/09/05	1.0	<b>37</b>	0.1
190714	EW-43	08/04/05	08/09/05	1.0	<b>7.8</b>	0.1

MRL: Method Reporting Limit      J: Estimated Value

\*: Subcontracted to a DOHS State-Certified Laboratory

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/02/05	08/02/05	08/02/05	08/02/05	
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05	08/05/05	
<b>AA ID No.:</b>	190570	190571	190572	190573	
<b>Client ID No.:</b>	MW-36	GTI-6	TB-080205	MW-12	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	<100	<100	<100	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/02/05	08/02/05	08/02/05	08/02/05	
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05	08/05/05	
<b>AA ID No.:</b>	190574	190575	190576	190577	
<b>Client ID No.:</b>	MW-9	MW-2	MW-23	Dup-1-080205	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	70J	50J	50J	100
Methyl tert-Butyl Ether	<2	0.43J	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** EPA 8260B

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** ug/L

<b>Date Sampled:</b>	<b>08/02/05</b>	<b>08/02/05</b>	<b>08/03/05</b>	<b>08/03/05</b>	
<b>Date Analyzed:</b>	<b>08/05/05</b>	<b>08/05/05</b>	<b>08/05/05</b>	<b>08/05/05</b>	
<b>AA ID No.:</b>	<b>190578</b>	<b>190579</b>	<b>190596</b>	<b>190597</b>	
<b>Client ID No.:</b>	<b>EBI-080205</b>	<b>MW-14</b>	<b>MW-25</b>	<b>MW-26</b>	
<b>Dilution Factor:</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>MRL</b>

**Compounds:**

Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<b>0.96J</b>	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<b>0.30J</b>	<0.5	0.5
Gasoline Range Organics	<100	<100	<b>150</b>	<b>40J</b>	100
Methyl tert-Butyl Ether	<2	<2	<b>2.2</b>	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/03/05	08/03/05	08/03/05	08/03/05	
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05	08/05/05	
<b>AA ID No.:</b>	190598	190599	190600	190601	
<b>Client ID No.:</b>	MW-8	MW-27	EB1-080305	TB-080305	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	<100	<100	<100	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/02/05	08/02/05	08/02/05	08/04/05	
<b>Date Analyzed:</b>	08/10/05	08/10/05	08/10/05	08/11/05	
<b>AA ID No.:</b>	190602	190603	190604	190706	
<b>Client ID No.:</b>	MW-23X	MW-21	MW-20	MW-6	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<b>29</b>	<0.5	<0.5	0.5
Di-isopropyl Ether	<b>0.72J</b>	<b>2.5</b>	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<b>0.77</b>	<0.5	<b>43</b>	0.5
Gasoline Range Organics	<b>240</b>	<b>330</b>	<b>110</b>	<b>2800</b>	100
Methyl tert-Butyl Ether	<b>2.2</b>	<b>31</b>	<b>7.3</b>	<b>4.2</b>	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<b>11</b>	<b>12</b>	<10	<10	10
Toluene	<0.5	<b>1.4</b>	<0.5	<b>0.63</b>	0.5
m,p-Xylenes	<1	<b>1.8</b>	<b>1.1</b>	<b>5.2</b>	1
o-Xylene	<0.5	<b>0.68</b>	<0.5	<b>0.89</b>	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	<b>08/04/05</b>	<b>08/04/05</b>	<b>08/04/05</b>	<b>08/04/05</b>	
<b>Date Analyzed:</b>	<b>08/11/05</b>	<b>08/11/05</b>	<b>08/11/05</b>	<b>08/11/05</b>	
<b>AA ID No.:</b>	<b>190707</b>	<b>190708</b>	<b>190709</b>	<b>190710</b>	
<b>Client ID No.:</b>	<b>MW-18</b>	<b>MW-17</b>	<b>MW-10</b>	<b>Dup1-080405</b>	
<b>Dilution Factor:</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<b>1.3</b>	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<b>0.41J</b>	<0.5	<0.5	0.5
Gasoline Range Organics	<100	<b>120</b>	<b>3800</b>	<b>4200</b>	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<b>640</b>	<b>570</b>	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	<b>08/04/05</b>	<b>08/04/05</b>	<b>08/04/05</b>	<b>08/04/05</b>	
<b>Date Analyzed:</b>	<b>08/11/05</b>	<b>08/11/05</b>	<b>08/11/05</b>	<b>08/11/05</b>	
<b>AA ID No.:</b>	<b>190711</b>	<b>190712</b>	<b>190713</b>	<b>190714</b>	
<b>Client ID No.:</b>	<b>EB1-080405</b>	<b>MW-31</b>	<b>MW-32</b>	<b>EW-43</b>	
<b>Dilution Factor:</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<b>0.82</b>	<b>64</b>	<b>5.0</b>	0.5
Di-isopropyl Ether	<2	<2	<b>1.3J</b>	<2	2
Ethyl tert-Butyl Ether	<2	<2	<b>0.97J</b>	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	<100	<b>12000</b>	<b>230</b>	100
Methyl tert-Butyl Ether	<2	<b>2.6</b>	<b>19000</b>	<b>5.8</b>	2
Tert-Amyl Methyl Ether	<2	<2	<b>46</b>	<2	2
Tert-Butanol	<10	<10	<b>14000</b>	<b>140</b>	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/04/05	08/04/05	08/04/05	08/03/05	
<b>Date Analyzed:</b>	08/11/05	08/11/05	08/11/05	08/11/05	
<b>AA ID No.:</b>	190715	190716	190717	190718	
<b>Client ID No.:</b>	MW-35	MW-33	TB-080405	MW-15	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	3800	2100	<0.5	<0.5	0.5
Di-isopropyl Ether	1.2J	4.3	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	55	370	<0.5	<0.5	0.5
Gasoline Range Organics	6500	3300	<100	<100	100
Methyl tert-Butyl Ether	120	23	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	48	15	<10	9.5J	10
Toluene	1.3	8.4	<0.5	<0.5	0.5
m,p-Xylenes	2.4	18	<1	<1	1
o-Xylene	<0.5	26	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/03/05	08/03/05	08/03/05	08/04/05	
<b>Date Analyzed:</b>	08/11/05	08/11/05	08/11/05	08/11/05	
<b>AA ID No.:</b>	190719	190720	190721	190722	
<b>Client ID No.:</b>	Dup1-080305	MW-4	GTI-3	MW-13	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<b>0.78</b>	<b>2.3</b>	<0.5	<b>35</b>	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<b>18</b>	0.5
Gasoline Range Organics	<b>140</b>	<b>120</b>	<100	<b>2200</b>	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<b>6.4J</b>	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<b>1.6</b>	0.5
m,p-Xylenes	<1	<1	<1	<b>1.3</b>	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

MRL: Method Reporting Limit

J: Estimated Value

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

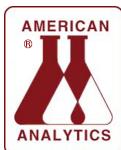
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<b>Client:</b>	URS (SA)	<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489	<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu	<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water	<b>Units:</b>	mg/L
<b>Method:</b>	Total Metals (Ba,Ca,Mg,K,Na)		
<b>Date Sampled:</b>	08/02/05	08/04/05	08/04/05
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05
<b>AA ID No.:</b>	190570	190713	190714
<b>Client ID No.:</b>	MW-36	MW-32	EW-43
<b>Dilution Factor:</b>	1.0	1.0	1.0
<b>Compounds:</b>			<b>MRL</b>
Barium	<0.2	<0.2	<0.2
Calcium	88	180	250
Magnesium	41	600	220
Potassium	13	190	63
Sodium	130	8200	1800

MRL: Method Reporting Limit

J: Estimated Value

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	
	ug/L	MRL
Benzene	<0.5	0.5
Di-isopropyl Ether	<2	2
Ethyl tert-Butyl Ether	<2	2
Ethylbenzene	<0.5	0.5
Gasoline Range Organics	<100	100
Methyl tert-Butyl Ether	<2	2
Tert-Amyl Methyl Ether	<2	2
Tert-Butanol	<10	10
Toluene	<0.5	0.5
m,p-Xylenes	<1	1
o-Xylene	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/10/05  
**Date Reported:** 01/10/06

Compounds	Results	
	ug/L	MRL
Benzene	<0.5	0.5
Di-isopropyl Ether	<2	2
Ethyl tert-Butyl Ether	<2	2
Ethylbenzene	<0.5	0.5
Gasoline Range Organics	<100	100
Methyl tert-Butyl Ether	<2	2
Tert-Amyl Methyl Ether	<2	2
Tert-Butanol	<10	10
Toluene	<0.5	0.5
m,p-Xylenes	<1	1
o-Xylene	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Zinc

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<b>0.026</b>	0.02
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.028</b>	0.02
190714	EW-43	08/04/05	08/05/05	1.0	<b>0.02</b>	0.02

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Iron

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<b>0.096J</b>	0.2
190713	MW-32	08/04/05	08/05/05	1.0	<b>12</b>	0.2
190714	EW-43	08/04/05	08/05/05	1.0	<b>18</b>	0.2

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** EPA 340.2 (Fluoride)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/05/05	1.0	<b>1.7</b>	0.1
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.19</b>	0.1
190714	EW-43	08/04/05	08/05/05	1.0	<0.1	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Manganese

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<b>0.52</b>	0.05
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.75</b>	0.05
190714	EW-43	08/04/05	08/05/05	1.0	<b>2.2</b>	0.05

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Phosphorous (EPA 365.2)\*

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	1.0	<b>0.19</b>	0.1
190713	MW-32	08/04/05	08/08/05	1.0	<b>2.2</b>	0.1
190714	EW-43	08/04/05	08/08/05	1.0	<b>3.2</b>	0.1

MRL: Method Reporting Limit      J: Estimated Value

\*: Subcontracted to a DOHS State-Certified Laboratory

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ferrous Iron (SM3500)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.1	0.1
190713	MW-32	08/04/05	08/05/05	1.0	<b>0.56</b>	0.1
190714	EW-43	08/04/05	08/05/05	1.0	<b>12</b>	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Dissolved Methane (RSK175M)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/11/05	1.0	<2	2
190713	MW-32	08/04/05	08/17/05	5.0	40	2
190714	EW-43	08/04/05	08/17/05	10.0	87	2

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrate as N (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.1	0.1
190713	MW-32	08/04/05	08/05/05	10.0	<1	0.1
190714	EW-43	08/04/05	08/05/05	10.0	<1	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfate (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	50.0	150	0.5
190713	MW-32	08/04/05	08/05/05	5,000.0	6700	0.5
190714	EW-43	08/04/05	08/05/05	1,000.0	1500	0.5

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** EPA 160.1 (Total Diss. Solids)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	2.0	<b>780</b>	10
190713	MW-32	08/04/05	08/08/05	20.0	<b>20000</b>	10
190714	EW-43	08/04/05	08/08/05	20.0	<b>6800</b>	10

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrite as N (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.1	0.1
190713	MW-32	08/04/05	08/05/05	10.0	<b>23</b>	0.1
190714	EW-43	08/04/05	08/05/05	10.0	<1	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Chloride (EPA 300.0)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	50.0	<b>41</b>	0.5
190713	MW-32	08/04/05	08/05/05	5,000.0	<b>17000</b>	0.5
190714	EW-43	08/04/05	08/05/05	1,000.0	<b>1700</b>	0.5

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfide (EPA 376.2)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/03/05	1.0	<0.05	0.05
190713	MW-32	08/04/05	08/05/05	1.0	<0.05	0.05
190714	EW-43	08/04/05	08/05/05	1.0	<0.05	0.05

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ion Balance

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** % Diff.

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/22/05	1.0	<b>-4.42</b>	0.01
190713	MW-32	08/04/05	08/22/05	1.0	<b>21.66</b>	0.01
190714	EW-43	08/04/05	08/22/05	1.0	<b>-1.87</b>	0.01

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ammonia Nitrogen (EPA 350.3)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/05/05	1.0	<b>3.2</b>	0.1
190713	MW-32	08/04/05	08/05/05	1.0	<b>26</b>	0.1
190714	EW-43	08/04/05	08/05/05	1.0	<b>8.7</b>	0.1

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** TKN (EPA 351.3)\*

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	1.0	<b>0.15</b>	0.1
190713	MW-32	08/04/05	08/08/05	1.0	<b>3.1</b>	0.1
190714	EW-43	08/04/05	08/08/05	1.0	<b>2.6</b>	0.1

MRL: Method Reporting Limit      J: Estimated Value

\*: Subcontracted to a DOHS State-Certified Laboratory

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Alkalinity (SM2320B)

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/08/05	1.0	<b>425</b>	2
190713	MW-32	08/04/05	08/08/05	1.0	<b>1955</b>	2
190714	EW-43	08/04/05	08/08/05	1.0	<b>1480</b>	2

MRL: Method Reporting Limit

J: Estimated Value

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 1 of 1

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Bromide (EPA 300.0)\*

**AA Project No.:** A32126  
**Date Received:** 08/02/05  
**Date Reported:** 01/10/06  
**Units:** mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	DF	Results	MRL
190570	MW-36	08/02/05	08/09/05	1.0	<b>0.22</b>	0.1
190713	MW-32	08/04/05	08/09/05	1.0	<b>37</b>	0.1
190714	EW-43	08/04/05	08/09/05	1.0	<b>7.8</b>	0.1

MRL: Method Reporting Limit      J: Estimated Value

\*: Subcontracted to a DOHS State-Certified Laboratory

DF: Dilution Factor

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/02/05	08/02/05	08/02/05	08/02/05	
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05	08/05/05	
<b>AA ID No.:</b>	190570	190571	190572	190573	
<b>Client ID No.:</b>	MW-36	GTI-6	TB-080205	MW-12	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	<100	<100	<100	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/02/05	08/02/05	08/02/05	08/02/05	
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05	08/05/05	
<b>AA ID No.:</b>	190574	190575	190576	190577	
<b>Client ID No.:</b>	MW-9	MW-2	MW-23	Dup-1-080205	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	70J	50J	50J	100
Methyl tert-Butyl Ether	<2	0.43J	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)				<b>AA Project No.:</b> A32126
<b>Project No.:</b>	29868489				<b>Date Received:</b> 08/02/05
<b>Project Name:</b>	Point Mugu				<b>Date Reported:</b> 01/10/06
<b>Sample Matrix:</b>	Water				<b>Units:</b> ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/02/05	08/02/05	08/03/05	08/03/05	
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05	08/05/05	
<b>AA ID No.:</b>	190578	190579	190596	190597	
<b>Client ID No.:</b>	EBI-080205	MW-14	MW-25	MW-26	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<b>0.96J</b>	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<b>0.30J</b>	<0.5	0.5
Gasoline Range Organics	<100	<100	<b>150</b>	<b>40J</b>	100
Methyl tert-Butyl Ether	<2	<2	<b>2.2</b>	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/03/05	08/03/05	08/03/05	08/03/05	
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05	08/05/05	
<b>AA ID No.:</b>	190598	190599	190600	190601	
<b>Client ID No.:</b>	MW-8	MW-27	EB1-080305	TB-080305	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<0.5	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	<100	<100	<100	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/02/05	08/02/05	08/02/05	08/04/05	
<b>Date Analyzed:</b>	08/10/05	08/10/05	08/10/05	08/11/05	
<b>AA ID No.:</b>	190602	190603	190604	190706	
<b>Client ID No.:</b>	MW-23X	MW-21	MW-20	MW-6	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<b>29</b>	<0.5	<0.5	0.5
Di-isopropyl Ether	<b>0.72J</b>	<b>2.5</b>	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<b>0.77</b>	<0.5	<b>43</b>	0.5
Gasoline Range Organics	<b>240</b>	<b>330</b>	<b>110</b>	<b>2800</b>	100
Methyl tert-Butyl Ether	<b>2.2</b>	<b>31</b>	<b>7.3</b>	<b>4.2</b>	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<b>11</b>	<b>12</b>	<10	<10	10
Toluene	<0.5	<b>1.4</b>	<0.5	<b>0.63</b>	0.5
m,p-Xylenes	<1	<b>1.8</b>	<b>1.1</b>	<b>5.2</b>	1
o-Xylene	<0.5	<b>0.68</b>	<0.5	<b>0.89</b>	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 6 of 9

<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/04/05	08/04/05	08/04/05	08/04/05	
<b>Date Analyzed:</b>	08/11/05	08/11/05	08/11/05	08/11/05	
<b>AA ID No.:</b>	190707	190708	190709	190710	
<b>Client ID No.:</b>	MW-18	MW-17	MW-10	Dup1-080405	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	1.3	<0.5	<0.5	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	0.41J	<0.5	<0.5	0.5
Gasoline Range Organics	<100	120	3800	4200	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<10	640	570	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	<b>08/04/05</b>	<b>08/04/05</b>	<b>08/04/05</b>	<b>08/04/05</b>	
<b>Date Analyzed:</b>	<b>08/11/05</b>	<b>08/11/05</b>	<b>08/11/05</b>	<b>08/11/05</b>	
<b>AA ID No.:</b>	<b>190711</b>	<b>190712</b>	<b>190713</b>	<b>190714</b>	
<b>Client ID No.:</b>	<b>EB1-080405</b>	<b>MW-31</b>	<b>MW-32</b>	<b>EW-43</b>	
<b>Dilution Factor:</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<0.5	<b>0.82</b>	<b>64</b>	<b>5.0</b>	0.5
Di-isopropyl Ether	<2	<2	<b>1.3J</b>	<2	2
Ethyl tert-Butyl Ether	<2	<2	<b>0.97J</b>	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	0.5
Gasoline Range Organics	<100	<100	<b>12000</b>	<b>230</b>	100
Methyl tert-Butyl Ether	<2	<b>2.6</b>	<b>19000</b>	<b>5.8</b>	2
Tert-Amyl Methyl Ether	<2	<2	<b>46</b>	<2	2
Tert-Butanol	<10	<10	<b>14000</b>	<b>140</b>	10
Toluene	<0.5	<0.5	<0.5	<0.5	0.5
m,p-Xylenes	<1	<1	<1	<1	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

Page 8 of 9

<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/04/05	08/04/05	08/04/05	08/03/05	
<b>Date Analyzed:</b>	08/11/05	08/11/05	08/11/05	08/11/05	
<b>AA ID No.:</b>	190715	190716	190717	190718	
<b>Client ID No.:</b>	MW-35	MW-33	TB-080405	MW-15	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	3800	2100	<0.5	<0.5	0.5
Di-isopropyl Ether	1.2J	4.3	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	55	370	<0.5	<0.5	0.5
Gasoline Range Organics	6500	3300	<100	<100	100
Methyl tert-Butyl Ether	120	23	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	48	15	<10	9.5J	10
Toluene	1.3	8.4	<0.5	<0.5	0.5
m,p-Xylenes	2.4	18	<1	<1	1
o-Xylene	<0.5	26	<0.5	<0.5	0.5

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

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<b>Client:</b>	URS (SA)			<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489			<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu			<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water			<b>Units:</b>	ug/L
<b>Method:</b>	EPA 8260B				
<b>Date Sampled:</b>	08/03/05	08/03/05	08/03/05	08/04/05	
<b>Date Analyzed:</b>	08/11/05	08/11/05	08/11/05	08/11/05	
<b>AA ID No.:</b>	190719	190720	190721	190722	
<b>Client ID No.:</b>	Dup1-080305	MW-4	GTI-3	MW-13	
<b>Dilution Factor:</b>	1.0	1.0	1.0	1.0	<b>MRL</b>
<b>Compounds:</b>					
Benzene	<b>0.78</b>	<b>2.3</b>	<0.5	<b>35</b>	0.5
Di-isopropyl Ether	<2	<2	<2	<2	2
Ethyl tert-Butyl Ether	<2	<2	<2	<2	2
Ethylbenzene	<0.5	<0.5	<0.5	<b>18</b>	0.5
Gasoline Range Organics	<b>140</b>	<b>120</b>	<100	<b>2200</b>	100
Methyl tert-Butyl Ether	<2	<2	<2	<2	2
Tert-Amyl Methyl Ether	<2	<2	<2	<2	2
Tert-Butanol	<10	<b>6.4J</b>	<10	<10	10
Toluene	<0.5	<0.5	<0.5	<b>1.6</b>	0.5
m,p-Xylenes	<1	<1	<1	<b>1.3</b>	1
o-Xylene	<0.5	<0.5	<0.5	<0.5	0.5

MRL: Method Reporting Limit

J: Estimated Value

**Eydie Schwartz**  
Project Manager



## LABORATORY ANALYSIS RESULTS

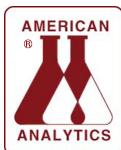
Page 1 of 1

<b>Client:</b>	URS (SA)	<b>AA Project No.:</b>	A32126
<b>Project No.:</b>	29868489	<b>Date Received:</b>	08/02/05
<b>Project Name:</b>	Point Mugu	<b>Date Reported:</b>	01/10/06
<b>Sample Matrix:</b>	Water	<b>Units:</b>	mg/L
<b>Method:</b>	Total Metals (Ba,Ca,Mg,K,Na)		
<b>Date Sampled:</b>	08/02/05	08/04/05	08/04/05
<b>Date Analyzed:</b>	08/05/05	08/05/05	08/05/05
<b>AA ID No.:</b>	190570	190713	190714
<b>Client ID No.:</b>	MW-36	MW-32	EW-43
<b>Dilution Factor:</b>	1.0	1.0	1.0
<b>Compounds:</b>			<b>MRL</b>
Barium	<0.2	<0.2	<0.2
Calcium	88	180	250
Magnesium	41	600	220
Potassium	13	190	63
Sodium	130	8200	1800

MRL: Method Reporting Limit

J: Estimated Value

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	
	ug/L	MRL
Benzene	<0.5	0.5
Di-isopropyl Ether	<2	2
Ethyl tert-Butyl Ether	<2	2
Ethylbenzene	<0.5	0.5
Gasoline Range Organics	<100	100
Methyl tert-Butyl Ether	<2	2
Tert-Amyl Methyl Ether	<2	2
Tert-Butanol	<10	10
Toluene	<0.5	0.5
m,p-Xylenes	<1	1
o-Xylene	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/10/05  
**Date Reported:** 01/10/06

Compounds	Results	
	ug/L	MRL
Benzene	<0.5	0.5
Di-isopropyl Ether	<2	2
Ethyl tert-Butyl Ether	<2	2
Ethylbenzene	<0.5	0.5
Gasoline Range Organics	<100	100
Methyl tert-Butyl Ether	<2	2
Tert-Amyl Methyl Ether	<2	2
Tert-Butanol	<10	10
Toluene	<0.5	0.5
m,p-Xylenes	<1	1
o-Xylene	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** TKN (EPA 351.3)\*  
**Sample ID:** Reagent Blank

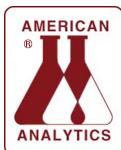
**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
TKN	<0.1	0.1

MRL: Method Reporting Limit

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Phosphorous (EPA 365.2)\*  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Total Phosphorous	<0.1	0.1

MRL: Method Reporting Limit

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Bromide (EPA 300.0)\*  
**Sample ID:** Reagent Blank

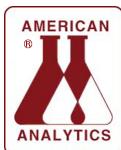
**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/09/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Bromide	<0.1	0.1

MRL: Method Reporting Limit

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/11/05  
**Date Reported:** 01/10/06

Compounds	Results	
	ug/L	MRL
Benzene	<0.5	0.5
Di-isopropyl Ether	<2	2
Ethyl tert-Butyl Ether	<2	2
Ethylbenzene	<0.5	0.5
Gasoline Range Organics	<100	100
Methyl tert-Butyl Ether	<2	2
Tert-Amyl Methyl Ether	<2	2
Tert-Butanol	<10	10
Toluene	<0.5	0.5
m,p-Xylenes	<1	1
o-Xylene	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Dissolved Methane (RSK175M)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/11/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	ug/L	
Methane	<2	2

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Dissolved Methane (RSK175M)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/17/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	ug/L	
Methane	<2	2

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

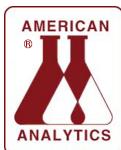
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Ferrous Iron (SM3500)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Ferrous Iron	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

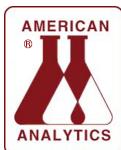
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Ferrous Iron (SM3500)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Ferrous Iron	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

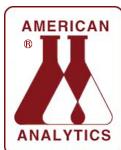
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Metals (Ba,Ca,Mg,K,Na)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	
	mg/L	MRL
Barium	<0.2	0.2
Calcium	<0.1	0.1
Magnesium	<0.1	0.1
Potassium	<0.2	0.2
Sodium	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Alkalinity (SM2320B)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Alkalinity Total as CaCO <sub>3</sub>	<2	2

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

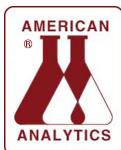
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 160.1 (Total Diss. Solids)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Total Dissolved Solids	<10	10

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Iron  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Iron	<0.2	0.2

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Manganese  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Manganese	<0.05	0.05

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

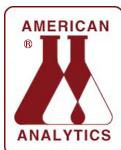
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Zinc  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Zinc	<0.02	0.02

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

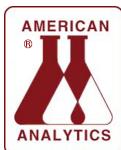
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Ammonia Nitrogen (EPA 350.3)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Ammonia Nitrogen	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfide (EPA 376.2)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Sulfide	<0.05	0.05

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfide (EPA 376.2)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Sulfide	<0.05	0.05

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 340.2 (Fluoride)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Fluoride	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Chloride (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Chloride	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrite as N (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Nitrite as N	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrate as N (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Nitrate as N	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfate (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Sulfate	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

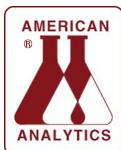
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Chloride (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Chloride	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

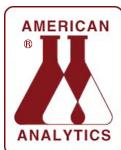
**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrite as N (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Nitrite as N	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrate as N (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Nitrate as N	<0.1	0.1

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfate (EPA 300.0)  
**Sample ID:** Reagent Blank

**Project No.:** 29868489  
**AA Project No.:** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Results	MRL
	mg/L	
Sulfate	<0.5	0.5

MRL: Method Reporting Limit

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 20 ug/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (ug/L)	Recovery (%)	Acceptable Range (%)
Benzene	18.9	95	75 - 125
Ethylbenzene	19.0	95	75 - 125
Gasoline Range Organics	20.0	100	75 - 125
Methyl tert-Butyl Ether	18.9	95	75 - 125
Toluene	18.3	92	75 - 125
o-Xylene	19.4	97	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 20 ug/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/10/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (ug/L)	Recovery (%)	Acceptable Range (%)
Benzene	19.0	95	75 - 125
Ethylbenzene	19.3	97	75 - 125
Gasoline Range Organics	20.4	102	75 - 125
Methyl tert-Butyl Ether	18.7	94	75 - 125
Toluene	18.8	94	75 - 125
o-Xylene	19.1	96	75 - 125

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** TKN (EPA 351.3)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
TKN	0.52	104.0	80.0 - 120

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Phosphorous (EPA 365.2)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.2 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Phosphorus	0.194	97.0	80.0 - 120

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Bromide (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/09/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Bromide	0.485	97.0	80.0 - 120

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 20 ug/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/11/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (ug/L)	Recovery (%)	Acceptable Range (%)
Benzene	19.5	98	75 - 125
Ethylbenzene	19.6	98	75 - 125
Gasoline Range Organics	20.4	102	75 - 125
Methyl tert-Butyl Ether	16.9	85	75 - 125
Toluene	19.1	96	75 - 125
o-Xylene	19.9	100	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Dissolved Methane (RSK175M)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 11 ug/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/11/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (ug/L)	Recovery (%)	Acceptable Range (%)
Methane	10.4	95	70 - 130

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Dissolved Methane (RSK175M)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 11 ug/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/17/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (ug/L)	Recovery (%)	Acceptable Range (%)
Methane	9.1	83	70 - 130

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Ferrous Iron (SM3500)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.2 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Ferrous Iron	0.209	105.0	50.0 - 150

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Ferrous Iron (SM3500)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.2 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Ferrous Iron	0.206	103.0	50.0 - 150

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Metals (Ba,Ca,Mg,K,Na)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 1 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Barium	1.02	102	75 - 125
Calcium	1.07	107	75 - 125
Magnesium	0.96	96	75 - 125
Potassium	0.92	92	75 - 125
Sodium	1.01	101	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Alkalinity (SM2320B)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 1,000 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Bicarbonate	975	98	80 - 120

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 160.1 (Total Diss. Solids)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 50 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Total Dissolved Solids	45	90	80 - 120

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Iron  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 1 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Iron	1.07	107	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Manganese  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 1 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Manganese	1.03	103	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Zinc  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 1 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Zinc	1.1	110	50 - 150

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Ammonia Nitrogen (EPA 350.3)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 1 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Ammonia as Nitrogen	0.96	96	80 - 120

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfide (EPA 376.2)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Sulfide	0.484	97.0	75.0 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfide (EPA 376.2)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Sulfide	0.493	99.0	75.0 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 340.2 (Fluoride)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 0.1 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Fluoride	0.099	99.0	80.0 - 120

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Chloride (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Chloride	2.68	107	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrite as N (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Nitrite as N	2.42	97	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrate as N (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Nitrate as N	2.37	95	75 - 125

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfate (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Sulfate	2.46	98	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Chloride (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Chloride	2.45	98	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrite as N (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Nitrite as N	2.39	96	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Nitrate as N (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Nitrate as N	2.48	99	75 - 125

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Sulfate (EPA 300.0)  
**Sample ID:** Laboratory Control Standard  
**Concentration:** 5 mg/L

**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/03/05  
**Date Reported:** 01/10/06

Compounds	Recovered Amount (mg/L)	Recovery (%)	Acceptable Range (%)
Sulfate	2.46	98	75 - 125

*Eydie Schwartz*

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Matrix Spike  
**Concentration:** 20 ug/L

**AA ID No:** 190570  
**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/05/05  
**Date Reported:** 01/10/06

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Benzene	18.9	95	19.1	96	1	50 - 150
Ethylbenzene	19.0	95	18.8	94	1	50 - 150
Methyl tert-Butyl Ether	21.4	107	20.1	101	6	50 - 150
Toluene	18.8	94	18.5	93	1	50 - 150
o-Xylene	19.3	97	18.9	95	2	50 - 150

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Matrix Spike  
**Concentration:** 20 ug/L

**AA ID No:** 190602  
**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/10/05  
**Date Reported:** 01/10/06

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Benzene	18.3	92	19.1	96	4	50 - 150
Ethylbenzene	18.3	92	19.5	98	6	50 - 150
Methyl tert-Butyl Ether	19.3	97	19.7	99	2	50 - 150
Toluene	18.1	91	18.5	93	2	50 - 150
o-Xylene	18.6	93	19.8	99	6	50 - 150

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** TKN (EPA 351.3)  
**Sample ID:** Matrix Spike  
**Concentration:** 0.5 mg/L

**AA ID No:** 190570  
**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Result (mg/L)	Spike Recovery (%)	Dup. Result (mg/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
TKN	0.44	88.0	0.44	88.0	0.0	80.0 - 120

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** Total Phosphorous (EPA 365.2)  
**Sample ID:** Matrix Spike  
**Concentration:** 0.2 mg/L

**AA ID No:** 190570  
**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/08/05  
**Date Reported:** 01/10/06

Compounds	Result (mg/L)	Spike Recovery (%)	Dup. Result (mg/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Phosphorus	0.19	95.0	0.19	95.0	0.0	80.0 - 120

\*: Subcontracted to a DOHS State-Certified Laboratory

**Eydie Schwartz**  
Project Manager



## LABORATORY QA/QC REPORT

Page 1 of 1

**Client:** URS (SA)  
**Project Name:** Point Mugu  
**Method:** EPA 8260B  
**Sample ID:** Matrix Spike  
**Concentration:** 20 ug/L

**AA ID No:** 190721  
**Project No.:** 29868489  
**AA Project No.** A32126  
**Date Analyzed:** 08/11/05  
**Date Reported:** 01/10/06

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept. Rec. Range (%)
Benzene	19.5	98	19.8	99	1	50 - 150
Ethylbenzene	19.6	98	19.5	98	0	50 - 150
Methyl tert-Butyl Ether	19.7	99	20.2	101	2	50 - 150
Toluene	19.7	99	19.0	95	4	50 - 150
o-Xylene	20.0	100	20.1	101	1	50 - 150

**Eydie Schwartz**  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Alkalinity (SM2320B)

**AA Project No.:** A32126  
**Concentration:** 1000 mg/L  
**Date Analyzed:** 08/08/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Bicarbonate	975	98	1005	100	3	80 - 120



Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County

**Project No.:** 29868489

**Project Name:** Point Mugu

**Sample Matrix:** Water

**Method:** Ammonia Nitrogen (EPA 350.3)

**AA Project No.:** A32126

**Concentration:** 1 mg/L

**Date Analyzed:** 08/05/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Ammonia as Nitrogen	0.96	96	1.02	102	6	80 - 120



Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Chloride (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/03/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Chloride	2.45	98	2.35	94	5	75 - 125



Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Chloride (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/05/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Chloride	2.68	107	2.42	97	10	75 - 125



Eydie Schwartz  
Project Manager

## Sample/Duplicate Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** EPA 340.2 (Fluoride)

**AA Project No.:** A32126  
**Date Analyzed:** 08/05/05  
**Sample ID:** 190570

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Dup. Result (mg/L)</b>	<b>RPD</b>
Fluoride	1.7	1.7	0



Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfate (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/03/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Sulfate	2.46	98	2.49	100	2	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfate (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/05/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Sulfate	2.46	98	2.58	103	5	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfide (EPA 376.2)

**AA Project No.:** A32126  
**Concentration:** 0.5 mg/L  
**Date Analyzed:** 08/03/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Sulfide	0.484	97	0.479	96	1	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Sulfide (EPA 376.2)

**AA Project No.:** A32126  
**Concentration:** 0.5 mg/L  
**Date Analyzed:** 08/05/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Sulfide	0.493	99	0.500	100	2	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County

**Project No.:** 29868489

**Project Name:** Point Mugu

**Sample Matrix:** Water

**Method:** EPA 160.1 (Total Diss. Solids)

**AA Project No.:** A32126

**Concentration:** 50 mg/L

**Date Analyzed:** 08/08/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Total Dissolved Solids	45	90	45	90	0	80 - 120

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrate as N (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/03/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Nitrate as N	2.48	99	2.37	95	5	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrate as N (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/05/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Nitrate as N	2.37	95	2.45	98	4	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrite as N (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/03/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Nitrite as N	2.39	96	2.36	94	2	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Nitrite as N (EPA 300.0)

**AA Project No.:** A32126  
**Concentration:** 2.5 mg/L  
**Date Analyzed:** 08/05/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Nitrite as N	2.42	97	2.37	95	2	75 - 125

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ferrous Iron (SM3500)

**AA Project No.:** A32126  
**Concentration:** 0.2 mg/L  
**Date Analyzed:** 08/03/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Ferrous Iron	0.209	105	0.199	100	5	50-150

*Eydie Schwartz*

Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Ferrous Iron (SM3500)

**AA Project No.:** A32126  
**Concentration:** 0.2 mg/L  
**Date Analyzed:** 08/05/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Ferrous Iron	0.206	103	0.197	99	5	50-150

*Eydie Schwartz*

Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County

**Project No.:** 29868489

**Project Name:** Point Mugu

**Sample Matrix:** Water

**Method:** Total Metals (Ba, Ca, Mg, K, Na)

**AA Project No.:** A32126

**Concentration:** 1 mg/L

**Date Analyzed:** 08/12/05

<b>Compounds</b>	<b>Result (mg/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (mg/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Barium	1.02	102	0.987	99	4	75-125
Calcium	1.07	107	1.03	103	4	75-125
Magnesium	0.960	96	0.940	94	3	75-125
Potassium	0.923	92	0.928	93	1	75-125
Sodium	1.01	101	1.01	101	0	75-125



Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Iron

**AA Project No.:** A32126  
**Concentration:** 1 mg/L  
**Date Analyzed:** 08/12/05

Compounds	Result (mg/L)	Spike Recovery (%)	Dup. Result (mg/L)	Spike/Dup. Recovery (%)	RPD	Accept. Rec. Range (%)
Iron	1.07	107	1.08	108	1	75-125



Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Manganese

**AA Project No.:** A32126  
**Concentration:** 1 mg/L  
**Date Analyzed:** 08/12/05

Compounds	Result (mg/L)	Spike Recovery (%)	Dup. Result (mg/L)	Spike/Dup. Recovery (%)	RPD	Accept. Rec. Range (%)
Manganese	1.03	103	1.03	103	0	75-125

*Eydie Schwartz*

Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** Total Zinc

**AA Project No.:** A32126  
**Concentration:** 1 mg/L  
**Date Analyzed:** 08/12/05

Compounds	Result (mg/L)	Spike Recovery (%)	Dup. Result (mg/L)	Spike/Dup. Recovery (%)	RPD	Accept. Rec. Range (%)
Zinc	1.10	110	1.11	111	1	75-125



Eydie Schwartz  
Project Manager

## Laboratory Control Sample/Duplicate Laboratory Control Sample

**Client:** Naval Base Ventura County  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** RSK 175M

**AA Project No.:** A32126  
**Concentration:** 11 ug/L  
**Date Analyzed:** 08/17/05

<b>Compounds</b>	<b>Result (ug/L)</b>	<b>Spike Recovery (%)</b>	<b>Dup. Result (ug/L)</b>	<b>Spike/Dup. Recovery (%)</b>	<b>RPD</b>	<b>Accept. Rec. Range (%)</b>
Methane	9.10	83	9.57	87	5	80-120



Eydie Schwartz  
Project Manager

## Laboratory QA/QC Report - Surrogates

**Client:** URS (SA)

**AA Project No.:** A32126

**Project No.:** 29868489

**Units:** %

**Project Name:** Point Mugu

**Sample Matrix:** Water

**Method:** EPA 8260B

AA ID No.	Client ID No.	Surrogate Recovery		
		S1	S2	S3
190570	MW-36	97	98	99
190571	GTI-6	98	99	102
190572	TB-080205	97	101	98
190573	MW-12	94	101	100
190574	MW-9	99	99	100
190575	MW-2	96	99	101
190576	MW-23	99	101	101
190577	DUP1-080205	99	100	115
190578	EB1-080205	98	103	101
190579	MW-14	97	99	99
190596	MW-25	100	99	100
190597	MW-26	100	101	99
190598	MW-8	99	99	100
190599	MW-27	104	102	101
190600	EB1-080305	95	101	104
190601	TB-080305	97	99	98
190602	MW-23X	96	104	98
190603	MW-21	98	101	92
190604	MW-20	97	102	105
190706	MW-6	95	101	94
190707	MW-18	96	102	98
190708	MW-17	90	103	107
190709	MW-10	97	103	99
190710	DUP1-080405	99	100	100
190711	EB1-080405	100	98	101
190712	MW-31	98	102	100
190713	MW-32	98	101	100

### Acceptance Ranges

**S1**- Dibromofluoromethane      80-120

**S2**- Toluene-d8      86-110

**S3**- Bromofluorobenzene      86-115

Eydie Schwartz  
Project Manager

## Laboratory QA/QC Report - Surrogates

**Client:** URS (SA)  
**Project No.:** 29868489  
**Project Name:** Point Mugu  
**Sample Matrix:** Water  
**Method:** EPA 8260B

**AA Project No.:** A32126  
**Units:** %

AA ID No.	Client ID No.	Surrogate Recovery		
		S1	S2	S3
190714	EW-43	106	105	109
190715	MW-35	95	99	98
190716	MW-33	96	98	97
190717	TB-080405	89	104	99
190718	MW-15	95	105	101
190719	DUP1-080305	94	105	101
190720	MW-4	96	102	99
190721	GTI-3	97	103	101
190722	MW-13	96	103	99
080505MB1	Method Blank (8/05/05)	97	99	100
190570MS	Matrix Spike	98	99	97
190570MSD	Matrix Spike Duplicate	100	98	98
080505LCS1	Laboratory Control Sample	100	98	97
081050MB1	Method Blank (8/10/05)	90	104	100
190602MS	Matrix Spike	101	100	102
190602MSD	Matrix Spike Duplicate	103	99	100
081005LCS1	Laboratory Control Sample	95	101	99
081105MB1	Method Blank (8/11/05)	93	104	102
190718MS	Matrix Spike	99	99	99
190718MSD	Matrix Spike Duplicate	100	97	103
081105LCS1	Laboratory Control Sample	99	102	102
081205MB1	Method Blank (8/12/05)	104	108	109
081205LCS1	Laboratory Control Sample	106	106	111
081205LCS2	Laboratory Control Sample Duplicate	108	104	109

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### Acceptance Ranges

**S1-** Dibromofluoromethane      80-120  
**S2-** Toluene-d8      86-110  
**S3-** Bromofluorobenzene      86-115

Eydie Schwartz  
Project Manager

# URS CORPORATION

2020 East First Street, Suite 400  
Santa Ana, CA 92705  
(714) 835-6886  
FAX (714) 667-7147

## CHAIN OF CUSTODY RECORD

A 321d6

Data Requested in GISKey Format

Sample Name:	Sample Date:	Sample Time:	Preserved:	Matrix:	Container Type:	# of Cont.:	Requester:	Special Instructions:
MW-36	8/2/05	1020	O	S G	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	1		190570 Upon Arrival
GTI-6	8/3/05	1106	O	S G	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	3		190571
TB-080305	Lab	1438	O	S G	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	2		190572
MW-12	8/1/05	1158	N	O	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	3		190573
MW-9	8/2/05	1414	N	O	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	3		190574
MW-2	8/2/05	1432	N	O	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	3		190575
MW-23	8/3/05	1526	O	S L G	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	2		190576
Dop 1 - 080305	8/2/05	1200	N	O	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	3		190577
E 131 - 080305	8/2/05	1530	O	S G	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	3		190578
MW-14	8/2/05	1320	N	O	Acetate SS, Brass Jar Encore ml Amb. Plas. Glass <input checked="" type="checkbox"/>	3		190579
Reinquired by:		Date:	Received By:	Date:	Date/Time:	Turnaround Time: (Check)	Lab Use Only	
Reinquired by:		Date:	Received By:	Date:	Date/Time:	Same Day: _____	72 Hour: _____	Cooler Temperature: _____
Reinquired by:		Date:	Received By:	Date:	Date/Time:	48 Hour: _____	6 Day: _____	*Record upon arrival
Reinquired by:		Date:	Received By:	Date:	Date/Time:	Standart: X		

White Copy in Final Report, Yellow to File, Print to URS at Dropoff

Approved as work order #321d6 check signature for hold before return

URS

## **URS CORPORATION**

2020 East First Street, Suite 400

Santa Ana, CA 92705

SEARCHED, SERIALIZED, INDEXED  
(711) 83E-6886

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**CHAIN OF CUSTODY RECORD**

A32126

Data Requested in GISKey Format

URS Project/Job Number:		29868489		Special Instructions:				
Geo Tracker Information:								
EDF Reporting: Y N Global ID:								
COIT Log Number:								
Client Name/Project Name/Location:								
Point Muqar (NEX)								
URS Project Manager:								
Tariq Hussain								
Sampler Name and Signature:								
Bramon Panig Boag								
Sample Name:		Sample Date:	Sample Time:	Preserved:	Matrix:			
					Container Type:			
					# of Cont.			
1	MW-25	8/3/05	0945	① HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3	X X	190596
2	MW-26	8/3/05	1045	② HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3	X X	190597
3	MW-28	8/3/05	1340	③ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3	X X	190598
4	MW-27	8/3/05	1215	④ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3	X X	190599
5	EB1-080305	8/3/05	1450	⑤ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3	X X	190600
6	TB-080305	8/3/05	1453	Y LAB	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	2	X X	190601
7	MW-15	8/3/05		⑥ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3	X X	
8	DPT-080305	8/3/05		⑦ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3	X X	
9					S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA			
10					S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA			
Reinstituted by:		Date:	Received By:	Date/Time:		Turnaround Time: (Check)		Lab Use Only
		Date:	Received By:	Same Day: 72 Hour: _____				Cooler Temperature*: _____
Relinquished by:		Date:	Received By:	Date/Time: 24 Hour: _____				*Record upon arrival
		Date:	Received By:	Date/Time: 5 Day: _____				
Relinquished by:		Date:	Received By:	Date/Time: 16:50				
		Date:	Received By:	Date/Time: 8/3/05				
URS								

URS CORPORATION

**2020 East First Street, Suite 400**  
**Santa Ana, CA 92705**  
**(714) 835-6886**  
**FAX (714) 667-7147**

**CHAIN OF CUSTODY RECORD**

AB3218.6

Data Requested in GISKey Format

Request for Analysis							Special Instructions:				
URS Project/PO Number: <b>29868489</b>							Requested Analysis:				
Geo/Tracker Information:											
EDF Reporting: Y N Global ID:											
COELT Log Number:											
Sample Name:							Sample Date:	Preserved:	Matrix:	Container/Type:	# of Cont.
1	MW-23 X	8/3/05	1650	①	S G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
2	MW-21	8/3/05	1742	②	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
3	MW-20	8/2/05	1800	③	S G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
4	<del>MW-14</del>	8/2/05		④	S G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
5				⑤	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
6				⑥	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
7				⑦	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
8				⑧	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
9				⑨	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
10				⑩	S L G	Acetate SS. Brass Jar Encore ____ml Amb. Plas. Glass VOA	3	X X			
Relinquished by: <i>Bonnie Bong</i> Date: <b>8/3/05</b>							Received By: <i>John Car</i> Date: <b>8/3/05</b>	Turnaround Time: (Check): <b>15:45</b>	Lab Use Only		
Relinquished by: <i>John Car</i> Date: <b>8/3/05</b>							Received By: <i>John Car</i> Date: <b>8/3/05</b>	Turnaround Time: (Check): <b>16:50</b>	Cooler Temperature*: _____		
Relinquished by: <i>John Car</i> Date: <b>8/3/05</b>							Received By: <i>John Car</i> Date: <b>8/3/05</b>	Turnaround Time: (Check): <b>16:50</b>	*Record upon arrival		
Relinquished by: <i>John Car</i> Date: <b>8/3/05</b>							Received By: <i>John Car</i> Date: <b>8/3/05</b>	Turnaround Time: (Check): <b>16:50</b>	Standard: <b>X</b>		

# URS CORPORATION

2020 East First Street, Suite 400  
 Santa Ana, CA 92705  
 (714) 835-6886  
 FAX (714) 667-7147

## CHAIN OF CUSTODY RECORD

A32126

Data Requested in GISKey Format

Lab Name: American Analytics

Client Name/Project Name/Location: Point Mugu

URS Project Manager:

Sample Name and Signature:

Tariq Hussain  
 Brown Pong

URS Project ID Number: 29868489  
 GeoTracer Information: EDF Reporting: Y N Global ID:

COELT Log Number:

Sample Name:	Sample Date:	Preserved:	Matrix:	Container Type:	# of Cont:	Requested Analytes:	Special Instructions:
MW-6	8/4/05 0745	① HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190406	Record Temp upon arrival
MW-18	8/4/05 0755	② HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190407	
MW-17	8/4/05 0940	③ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190408	
MW-10	8/4/05 0955	④ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190409	
DUP 1 - 080405	8/4/05 1000	⑤ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190410	
EB 1 - 080405	8/4/05 0935	⑥ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190411	
MW-31	8/4/05 1045	⑦ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190412	
MW-32	8/4/05 1340	⑧	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	13	X X X X X X X X X X X X X X	190413	
EW-43	8/4/05 1405	⑨	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	13	X X X X X X X X X X X X X X	190414	
MW-35	8/4/05 1420	⑩ HCl	S Acetate SS. Brass Jar Encore ml Amb. Plas. Glass	3	X X	190415	
Received By:	Date:	Received By:	Date:	Turnaround Time:	(Check)	Lab Use Only	
<i>[Signature]</i>	8/4/05 1546	<i>[Signature]</i>	8/4/05 1646	Same Day:	<input checked="" type="checkbox"/>	Cooler Temperature*:	
<i>[Signature]</i>	8/4/05 1708	<i>[Signature]</i>	8/4/05 1708	24 Hour:	<input type="checkbox"/>	Record upon arrival	
Relinquished by:	Date:	Relinquished by:	Date:	5 Day:	<input type="checkbox"/>		
<i>[Signature]</i>	8/4/05	<i>[Signature]</i>	8/4/05	48 Hour:	<input type="checkbox"/>		
Relinquished by:	Date:	Relinquished by:	Date:	Standard:	<input type="checkbox"/>		

S=Solid t=Liquid G=Gas White Copy in Final Report. Yellow to File, Pink to URS at Dropoff

**URS**

Approved as Work Order 8/15/05  
*[Signature]*

Date: 8/4/05  
 Page 1 of 2

**URS CORPORATION**  
2020 East First Street, Suite 400  
Seattle, WA 98102-3205

**2020 East First Street, Suite 400  
Santa Ana, CA 92705**

Santa Ana, CA 92705

Santa Ana, CA 92705  
(714) 835-6996

A32/126

**CHAIN OF CUSTODY RECORD**

Date: 8/4/05

**URS CORPORATION**  
 2020 East First Street, Suite 400  
 Santa Ana, CA 92705  
 (714) 835-6886  
 FAX (714) 667-7147

# A 32/26

## CHAIN OF CUSTODY RECORD

Date: 8/31/05  
 Page 1 of 1

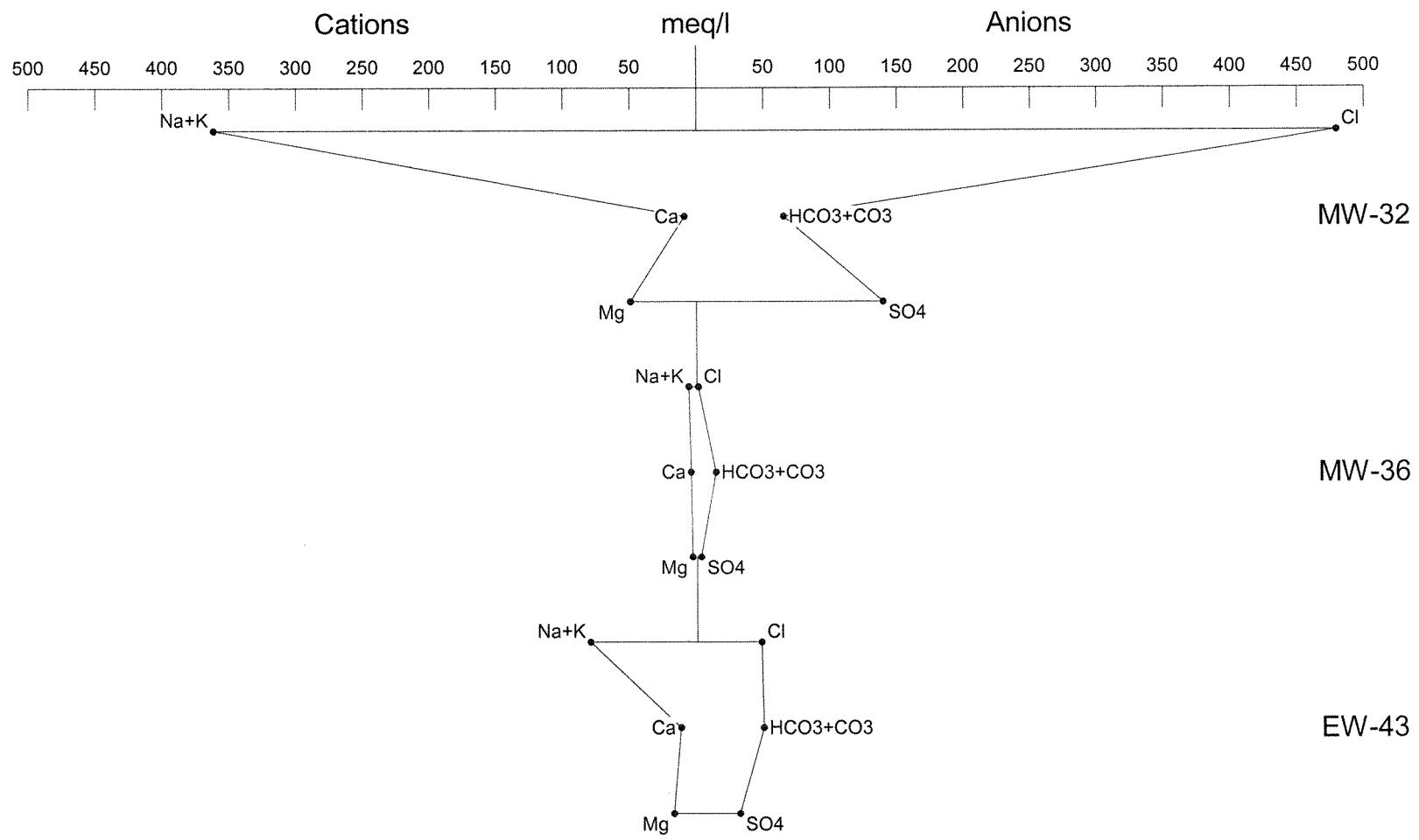
Data Requested in GISKey Format

Lab Name:	URS Project ID Number:	Requested Analyses:										Special Instructions:	
Client Name/Project Name/Location:	GeoTracer Information:												
Point Mugu	29868489												
Jang Hussain	EDF Reporting: Y N Global ID: CCETL Log Number:												
Brannon Pang													
Sample Name:	Sample Date:	Sample Time:	Presented:	Matrix:	Container Type:	# of Cont.							
MW-15	8/3/05	1600	Y	HCl	S	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3						
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GTI-3	8/3/05	1940	P	HCl	S	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3						
MW-13	8/3/05	1915	P	HCl	P	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA	3						
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			Y	S	L	Acetate SS. Brass Jar Encore ml Amb. Plas. Glass VOA							
			N	G	G								

## **APPENDIX D**

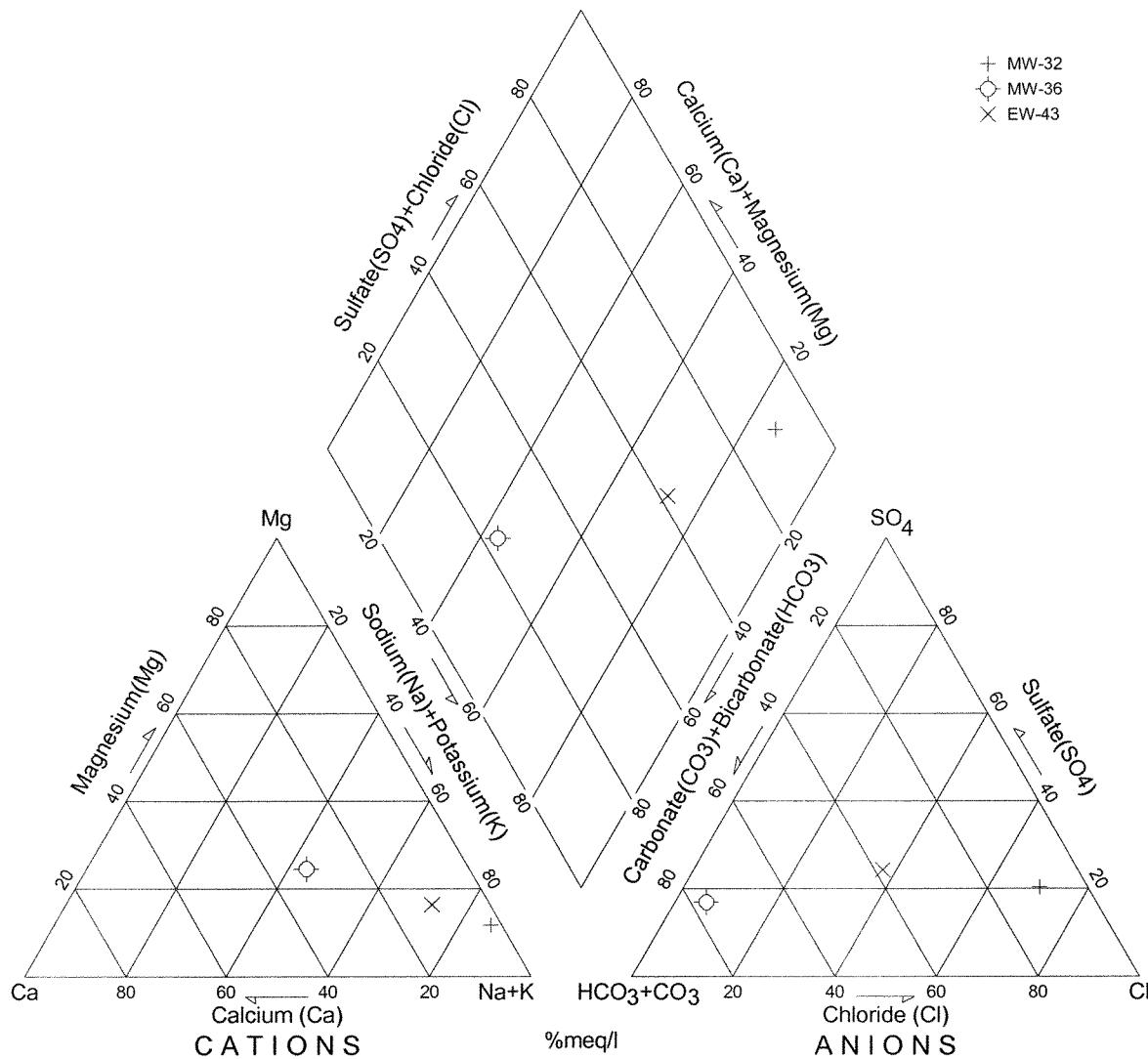
### **STIFF AND TRILINEAR DIAGRAMS FOR GROUNDWATER QUALITY**

# Point Mugu NEX Gasoline Station Groundwater Quality



### Point Mugu NEX Gasoline Station

#### Groundwater Quality



## APPENDIX E

## SUMMARY OF HISTORIC ATTENUATION PARAMETER DATA

**NAVAL BASE VENTURA COUNTY  
NEX GAS STATION  
POINT MUGU, CALIFORNIA**

Well No.	Date of Sampling <sup>1</sup>	Time of Sampling	Sulfate EPA 300.0 (mg/L) <sup>2</sup>	Nitrate EPA 300.0 (mg/L) <sup>2</sup>	Dis. Methane RSK 175M (HCl) (ug/L) <sup>3</sup>	Dis. Fe (II) SM-3500-FE-D (mg/L) <sup>2</sup>	Dis. Mn (II) EPA 3010A (mg/L) <sup>2,4</sup>	Total Alkalinity SM 2320B (mg/L) <sup>2</sup>	Ortho-Phosphate EPA 365.2 (mg/L)	pH	Temperature (°C) <sup>5</sup>	Conductivity (uMho/cm) <sup>6</sup>	ORP (mV) <sup>7</sup>
MW-2	4/1/2003	8:58	830	2.3	<2	0.17	<0.5	370	NA	8.0	20.1	1770	138.00
	6/3/2003	9:42	1500	3.9	<2	<0.1	NA	320	<0.3	8.0	21.3	4400	30.40
MW-10	12/12/2002	8:30	4500	<2 <sup>8</sup>	11	0.11	0.16	NA	NA	7.2	19.0	15100	109.00
MW-13	12/12/2002	9:10	18	<1 <sup>9</sup>	4600	1.59	0.85	NA	NA	7.2	22.1	1300	83.00
	4/1/2003	8:00	26	<0.1	3900	0.89	<0.5	390	NA	7.6	20.0	5110	-81.00
	6/3/2003	8:49	44	<0.1	7900	<0.1	NA	420	<0.3	7.6	22.6	1200	-110.30
MW-17	12/12/2002	10:00	30	<2 <sup>8</sup>	150	0.11	0.50	NA	NA	7.7	23.4	9600	87.00
	4/1/2003	11:30	300	8.8	2.6	0.17	<0.5	330	NA	8.1	20.7	1310	153.00
	6/3/2003	11:28	270	9.2	2.1	<0.1	NA	440	<0.3	7.5	21.9	2100	50.90
MW-20	12/12/2002	10:30	700	<2 <sup>8</sup>	4.4	0.12	2.4	NA	NA	7.1	23.7	12000	25.00
	4/1/2003	11:10	1100	49	<2	<0.1	<0.5	450	NA	7.7	21.2	1720	118.00
	6/3/2003	10:59	920	2.7	1.8 <sup>10</sup>	<0.1	NA	530	<0.3	7.1	23.0	5200	18.90
MW-21	12/12/2002	10:45	1100	<2 <sup>8</sup>	4.9	0.08 <sup>10</sup>	0.44	NA	NA	7.2	21.3	>19900	60.00
	4/1/2003	11:18	1400	46	<2	<0.1	<0.5	340	NA	7.6	18.1	4100	150.00
	6/3/2003	11:10	1800	<0.1	<2	<0.1	NA	590	0.34	7.3	19.4	8900	47.70
MW-23X	4/1/2003	10:10	1400	5.0	<2	<0.1	<0.5	800	NA	7.3	20.1	1440	171.00
	6/3/2003	10:42	1000	2.4	1.1 <sup>10</sup>	<0.1	NA	550	<0.3	7.2	21.5	2900	32.90
MW-25	12/12/2002	9:30	1600	<2 <sup>8</sup>	7.8	0.05 <sup>10</sup>	1.6	NA	NA	7.2	21.0	2100	86.00
	4/1/2003	9:25	1300	610	5.8	<0.1	<0.5	1100	NA	7.2	17.9	10400	-46.00
	6/3/2003	10:08	2500	<0.1	15	0.38	NA	1100	<0.3	7.0	17.6	6400	-35.50

## APPENDIX E

## SUMMARY OF HISTORIC ATTENUATION PARAMETER DATA

**NAVAL BASE VENTURA COUNTY  
NEX GAS STATION  
POINT MUGU, CALIFORNIA**

Well No.	Date of Sampling <sup>1</sup>	Time of Sampling	Sulfate EPA 300.0 (mg/L) <sup>2</sup>	Nitrate EPA 300.0 (mg/L) <sup>2</sup>	Dis. Methane RSK 175M (HCl) (ug/L) <sup>3</sup>	Dis. Fe (II) SM-3500-FE-D (mg/L) <sup>2</sup>	Dis. Mn (II) EPA 3010A (mg/L) <sup>2,4</sup>	Total Alkalinity SM 2320B (mg/L) <sup>2</sup>	Ortho-Phosphate EPA 365.2 (mg/L)	pH	Temperature (°C) <sup>5</sup>	Conductivity (uMho/cm) <sup>6</sup>	ORP (mV) <sup>7</sup>
MW-31	12/12/2002	8:50	22	<2 <sup>8</sup>	1500	1.26	0.13	NA	NA	7.3	23.8	5500	70.00
	4/1/2003	8:15	98	0.47	4400	3.1	<0.5	1300	NA	7.6	20.6	1410	-49.00
	6/3/2003	8:55	76	0.22	5400	3.6	NA	1500	1.7	7.6	21.2	4900	-143.30
MW-32	4/1/2003	8:40	1600	170	6.3	<0.1	<0.5	2100	NA	7.4	22.3	12400	-51.00
	6/3/2003	9:25	2100	<0.1	26	0.68	NA	2000	2.3	7.4	21.8	13900	-115.30
MW-33	12/12/2002	10:15	81	<2 <sup>8</sup>	3.9	0.08 <sup>10</sup>	0.19	NA	NA	7.6	23.2	5800	35.00
	4/1/2003	9:45	1000	0.58	90	3.1	<0.5	1700	NA	7.4	22.4	4600	-93.00
	6/3/2003	10:24	1600	<0.1	6.3	1.7	NA	1100	<0.3	7.6	23.6	4100	-114.20

**NOTES:**

1. Field parameters were measured on March 31, 2003 and groundwater samples were collected on April 1, 2003.

Field parameters were measured on June 21, 2003 and groundwater samples were collected on June 3, 2003.

2. mg/L - milligram per liter.

3. ug/L - microgram per liter.

4. December 2002 data are Dissolved Total Manganese levels.

5. °C - degrees Celsius

6. umho/cm - micromho per centimeter - microSiemen per centimeter

7. mV - milliVolts

8. The practical quantitation limit (PQL) or method detection limit (MDL) is elevated because of matrix interferences and because the sample required diluting.

9. The PQL or MDL is elevated because of matrix interferences.

10. Estimated Concentration. The result is less than the PQL, but greater than the MDL.

11. Dissolved Sulfide (EPA 376.2) was non detect for all wells at 0.05 mg/L in April 2003.

Nitrite (EPA 300.0) was non detect for all wells at 0.1 mg/L in April 2003.

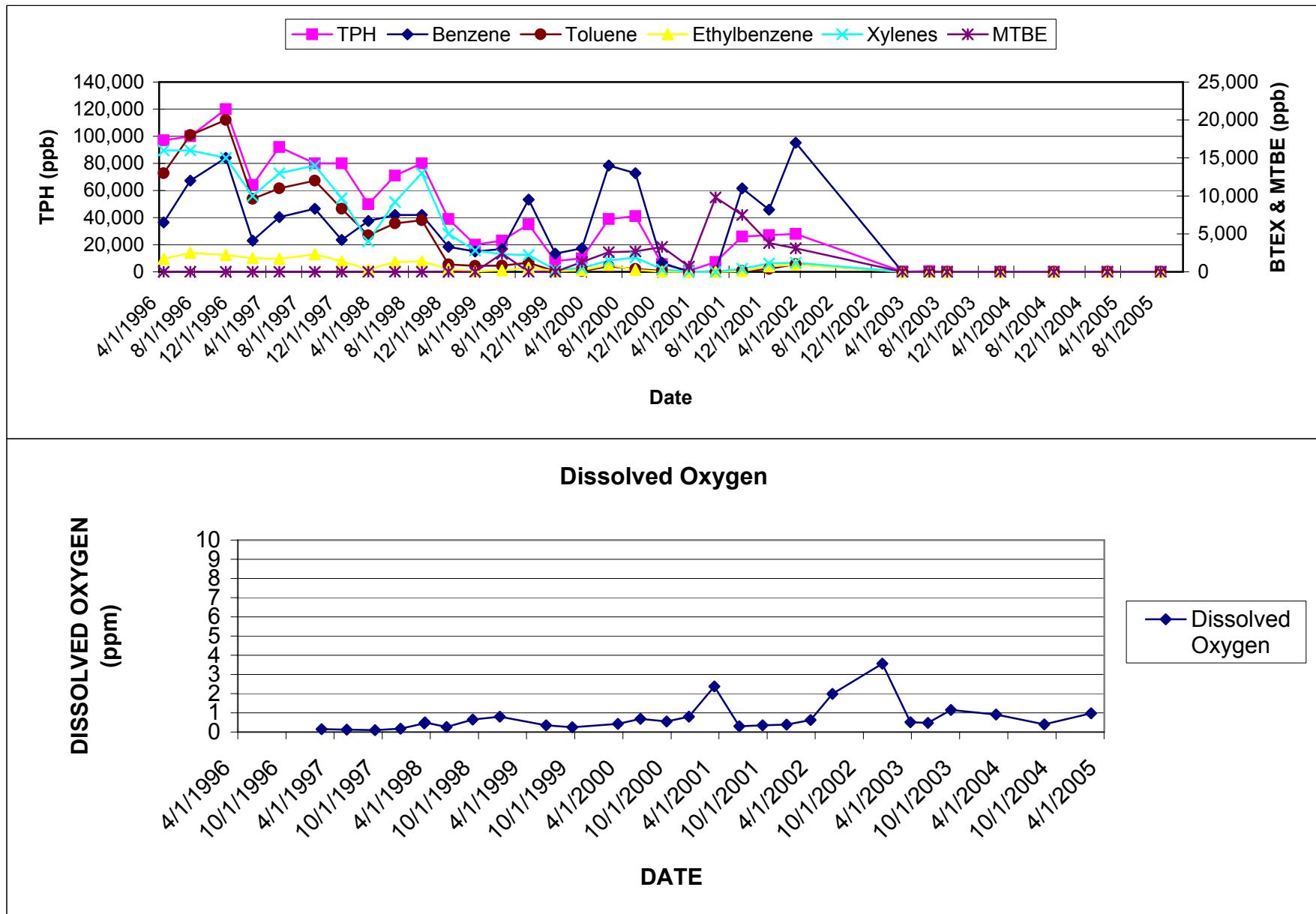
**APPENDIX E**

**SUMMARY OF HISTORIC ATTENUATION PARAMETER DATA**

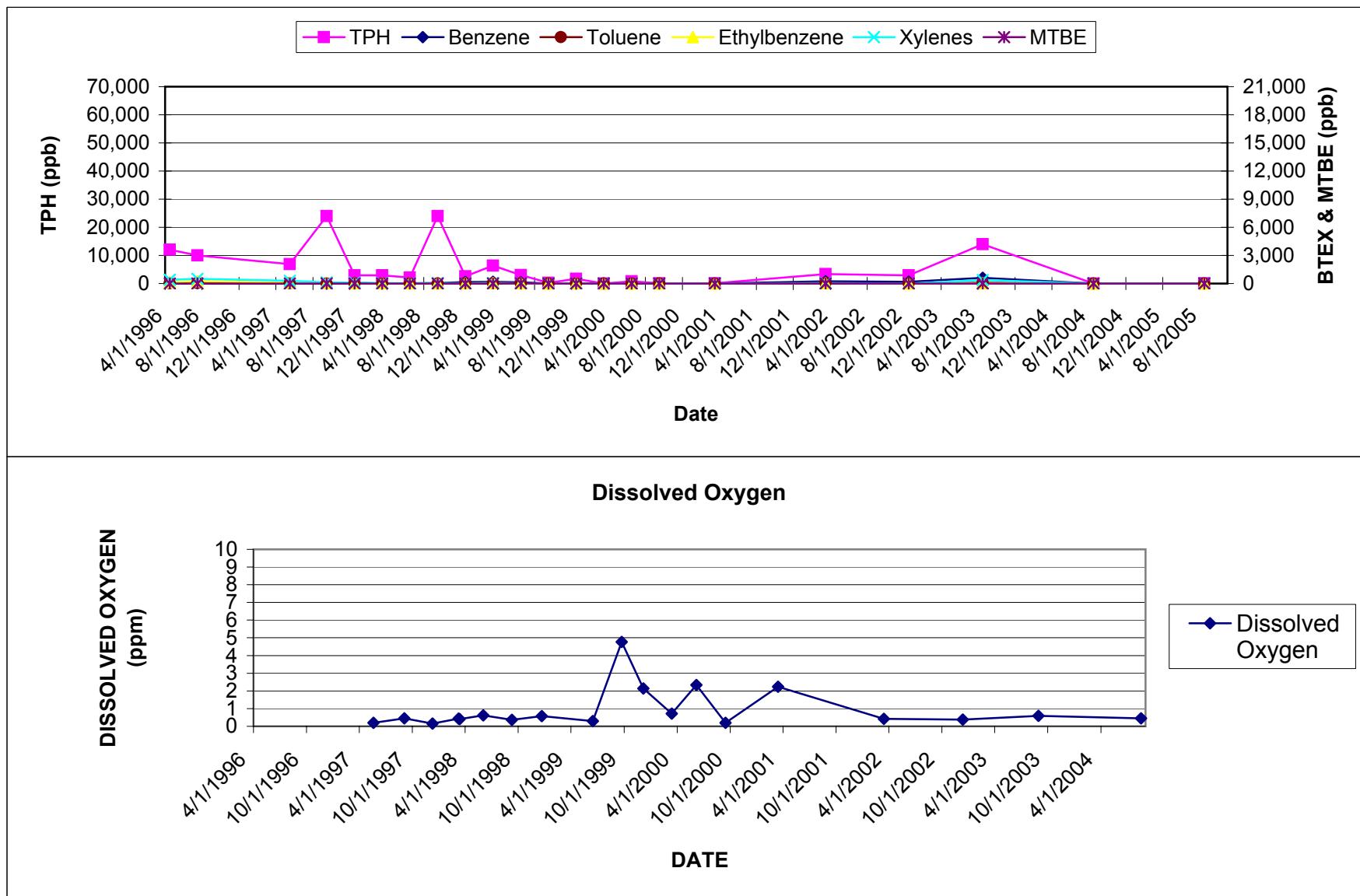
**APPENDIX F**

**CONCENTRATION VERSUS TIME GRAPHS**  
**FOR SELECTED GROUNDWATER MONITORING WELLS**

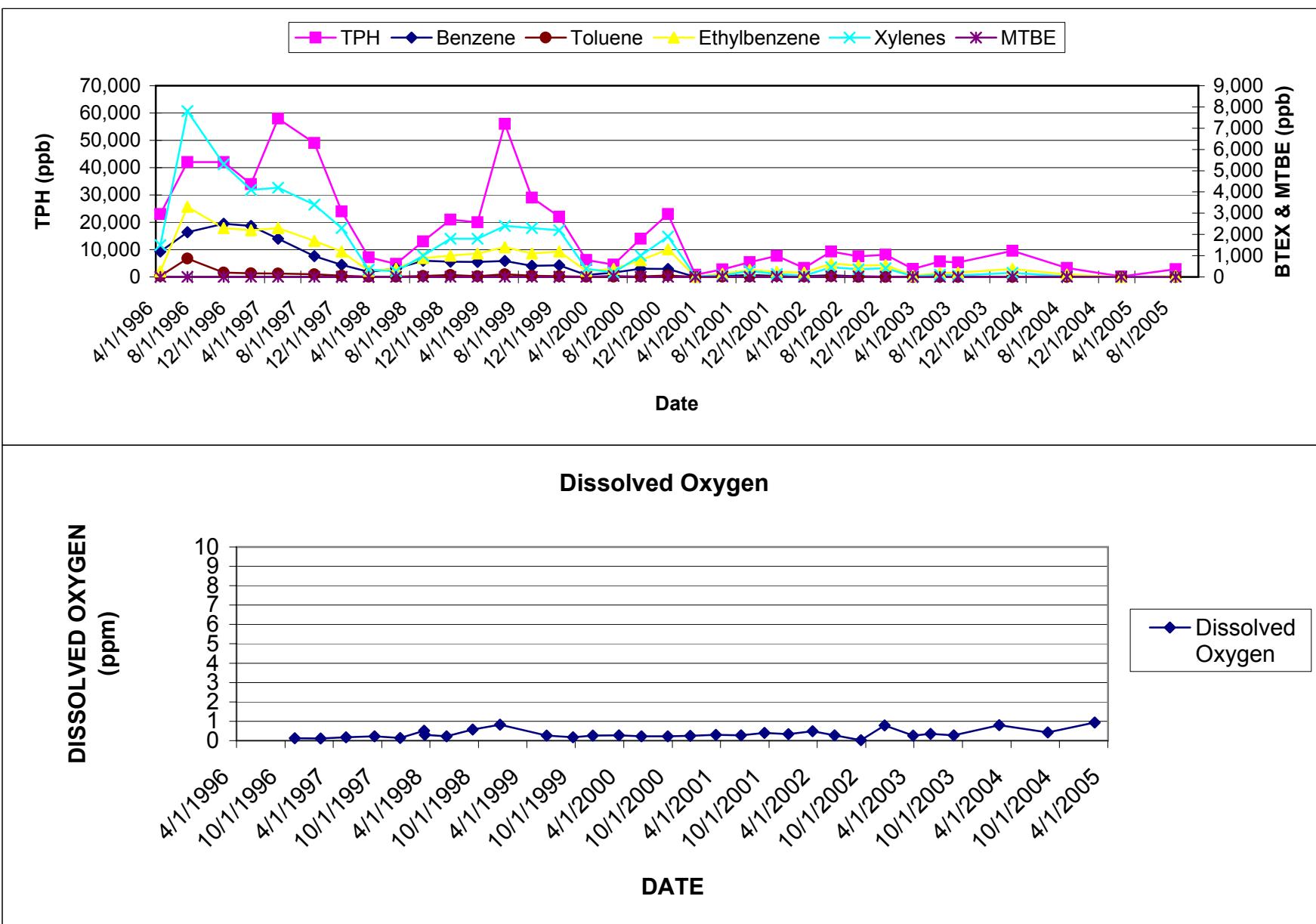
**MW-2**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



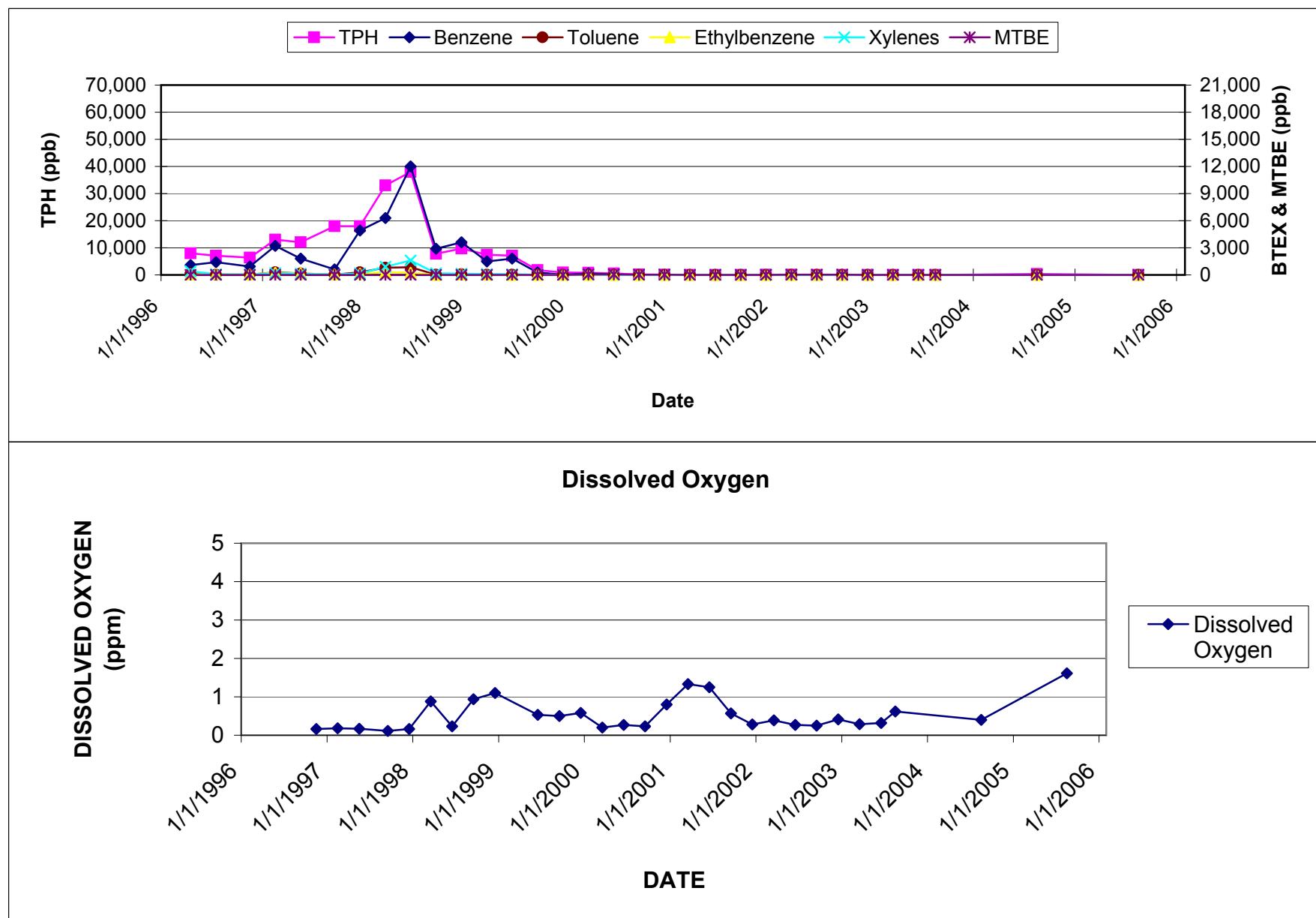
**MW-4**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



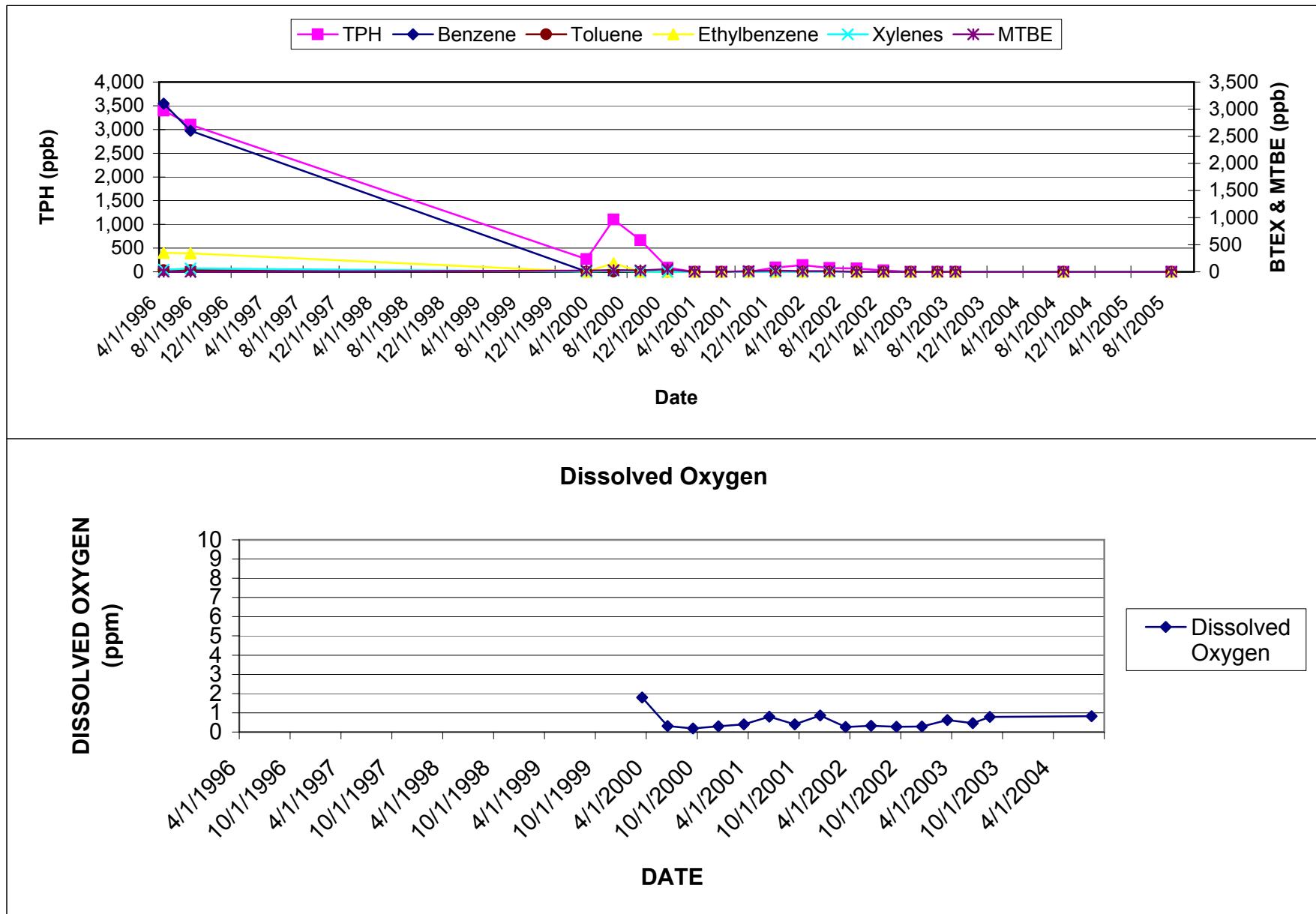
**MW-6**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



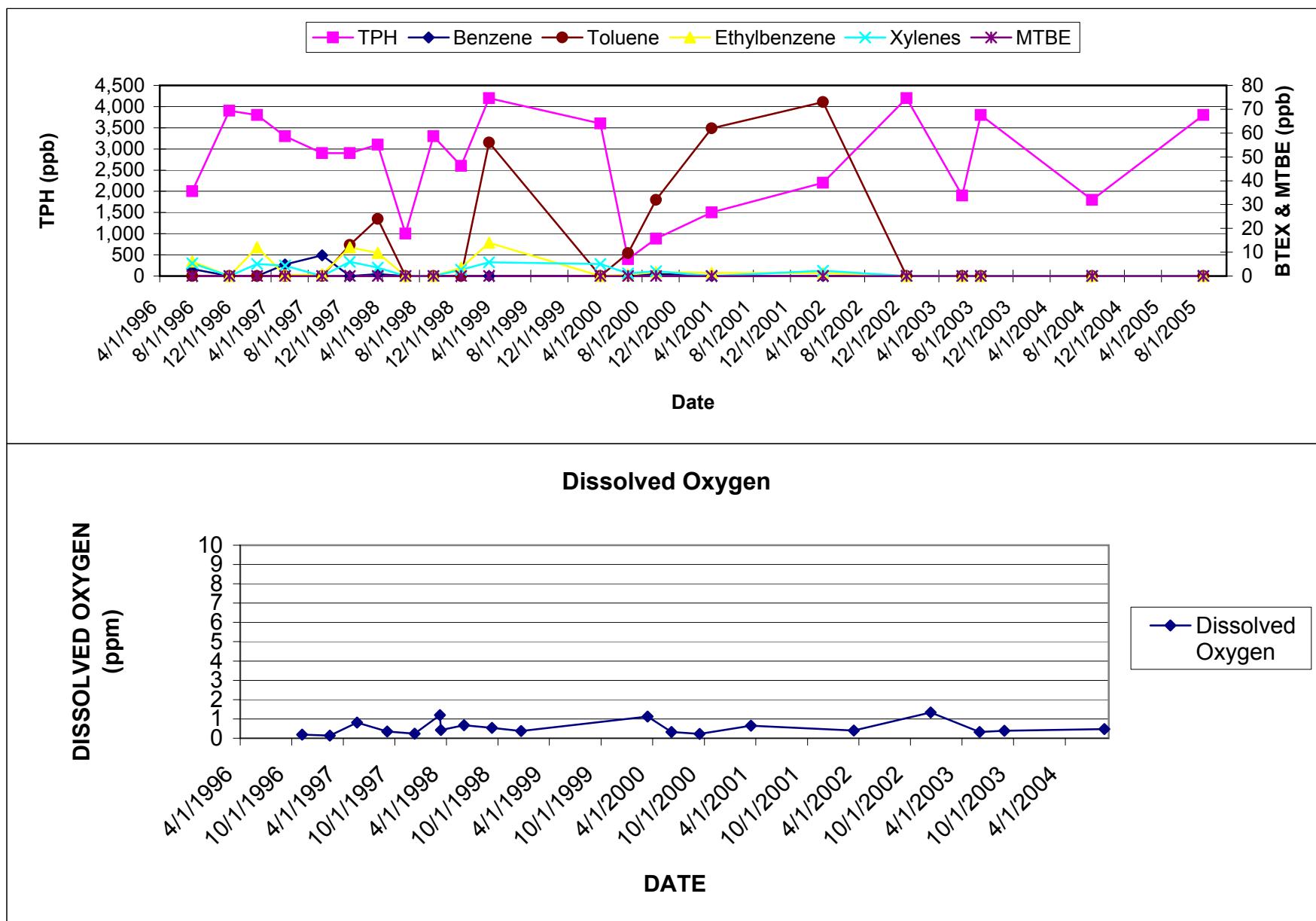
**MW-8**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



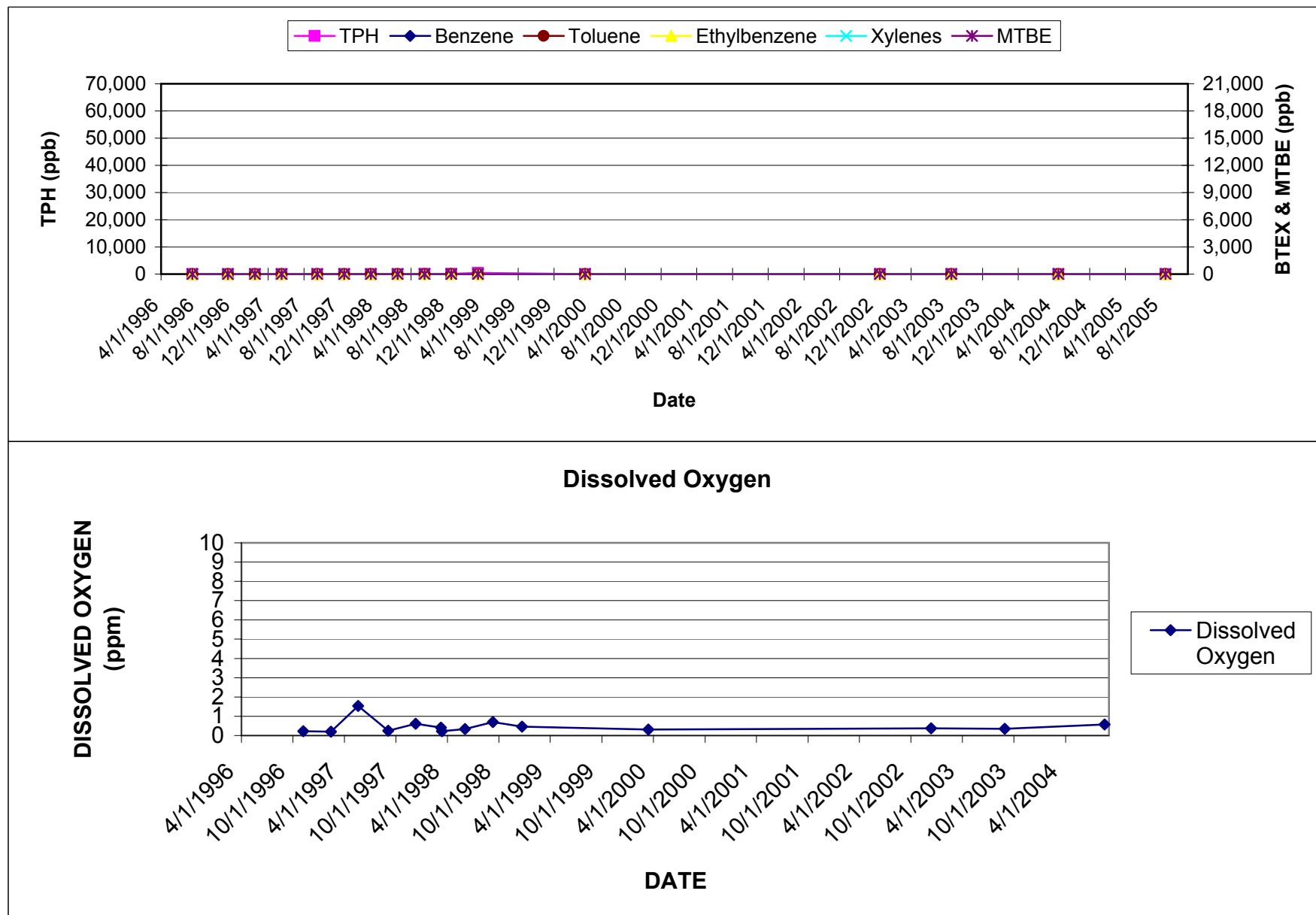
**MW-9**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



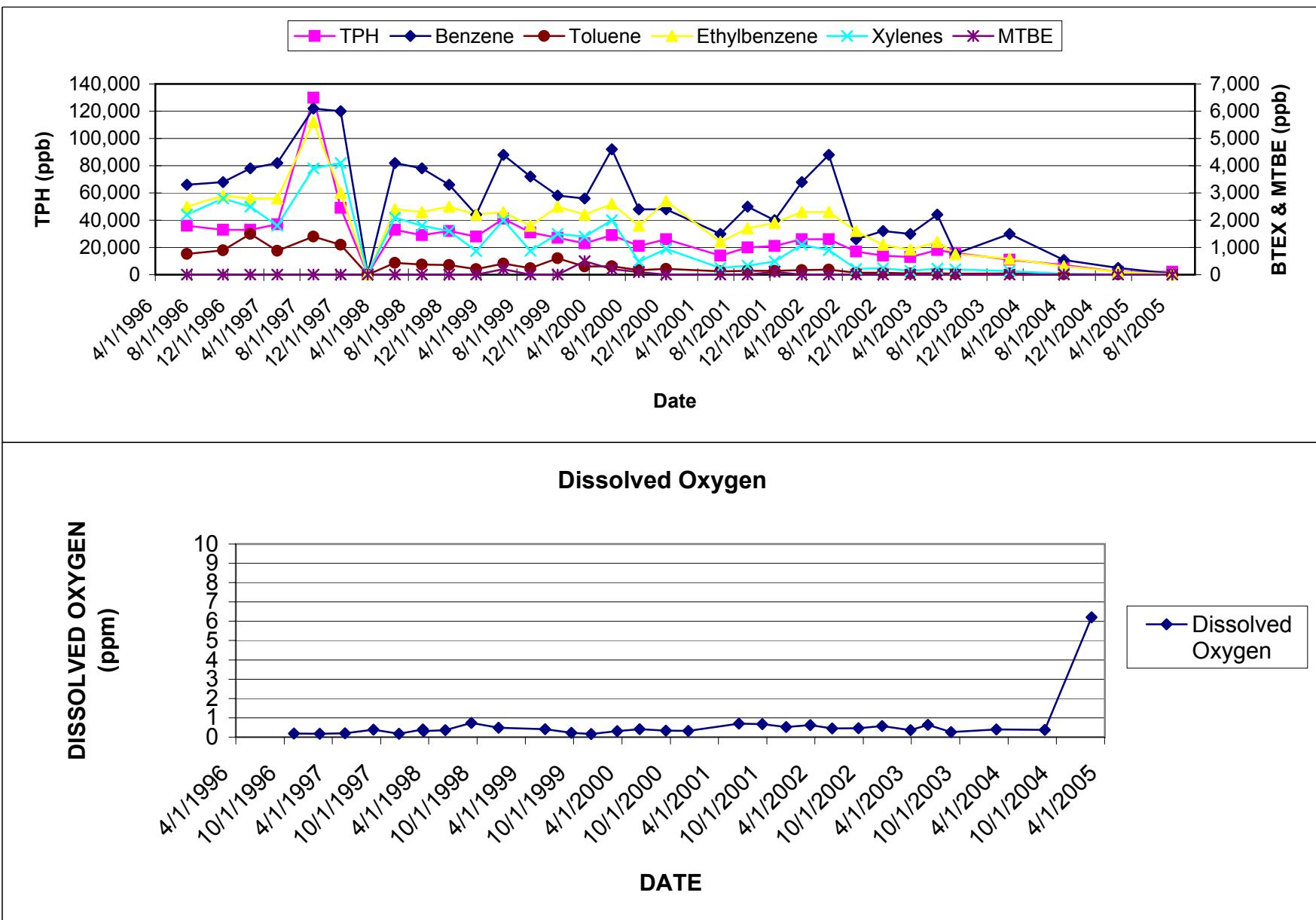
**MW-10**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



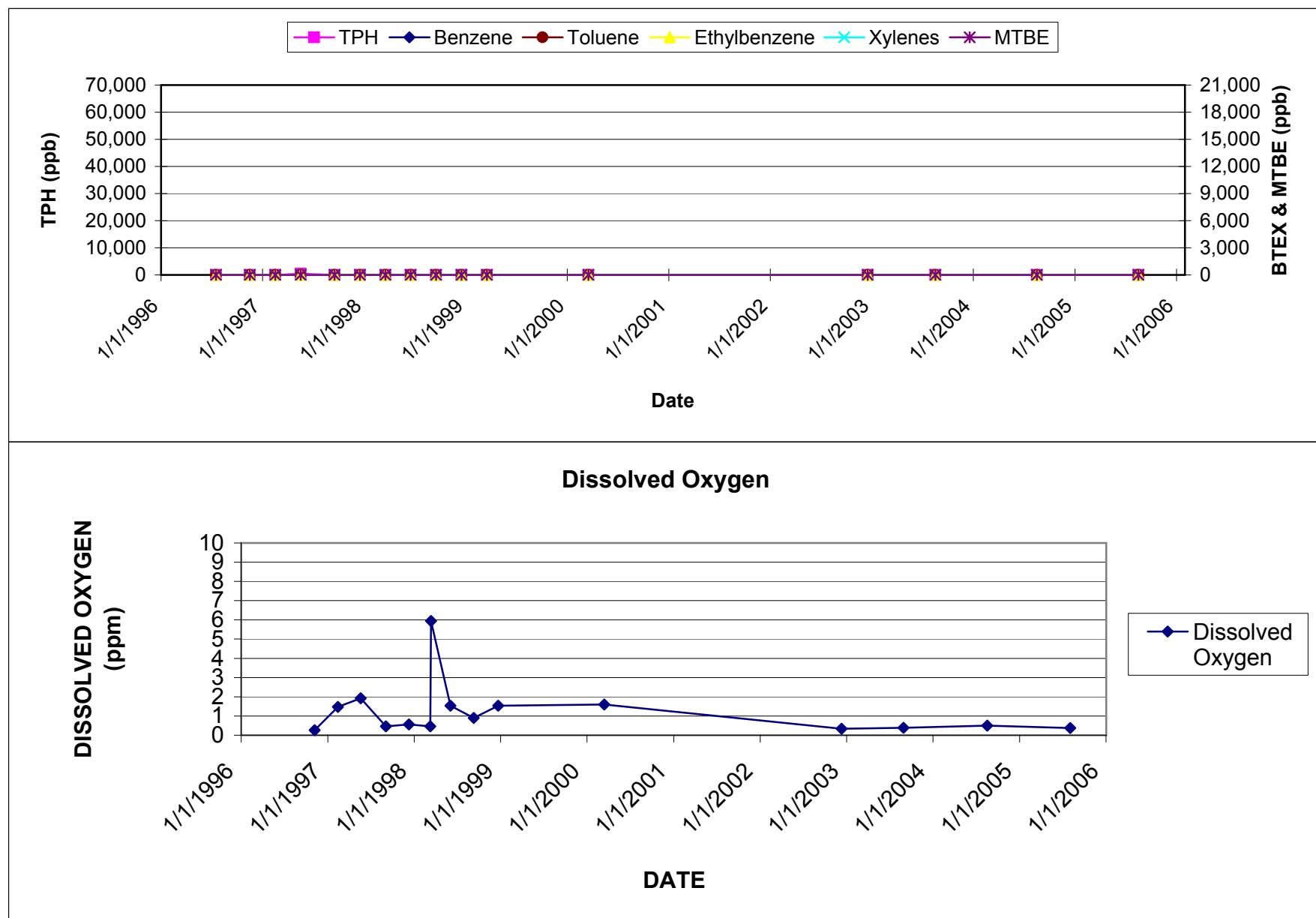
**MW-12**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



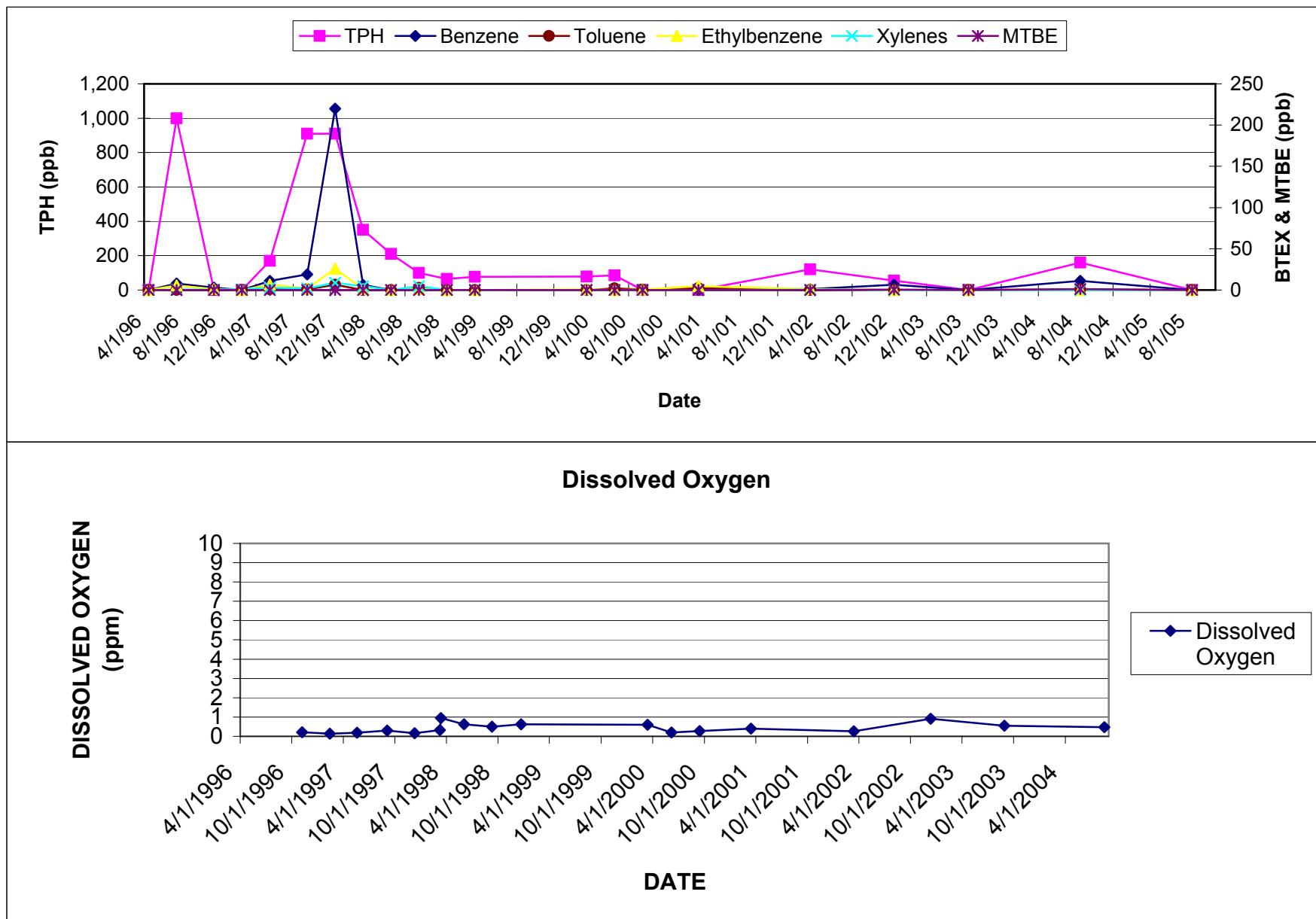
**MW-13**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



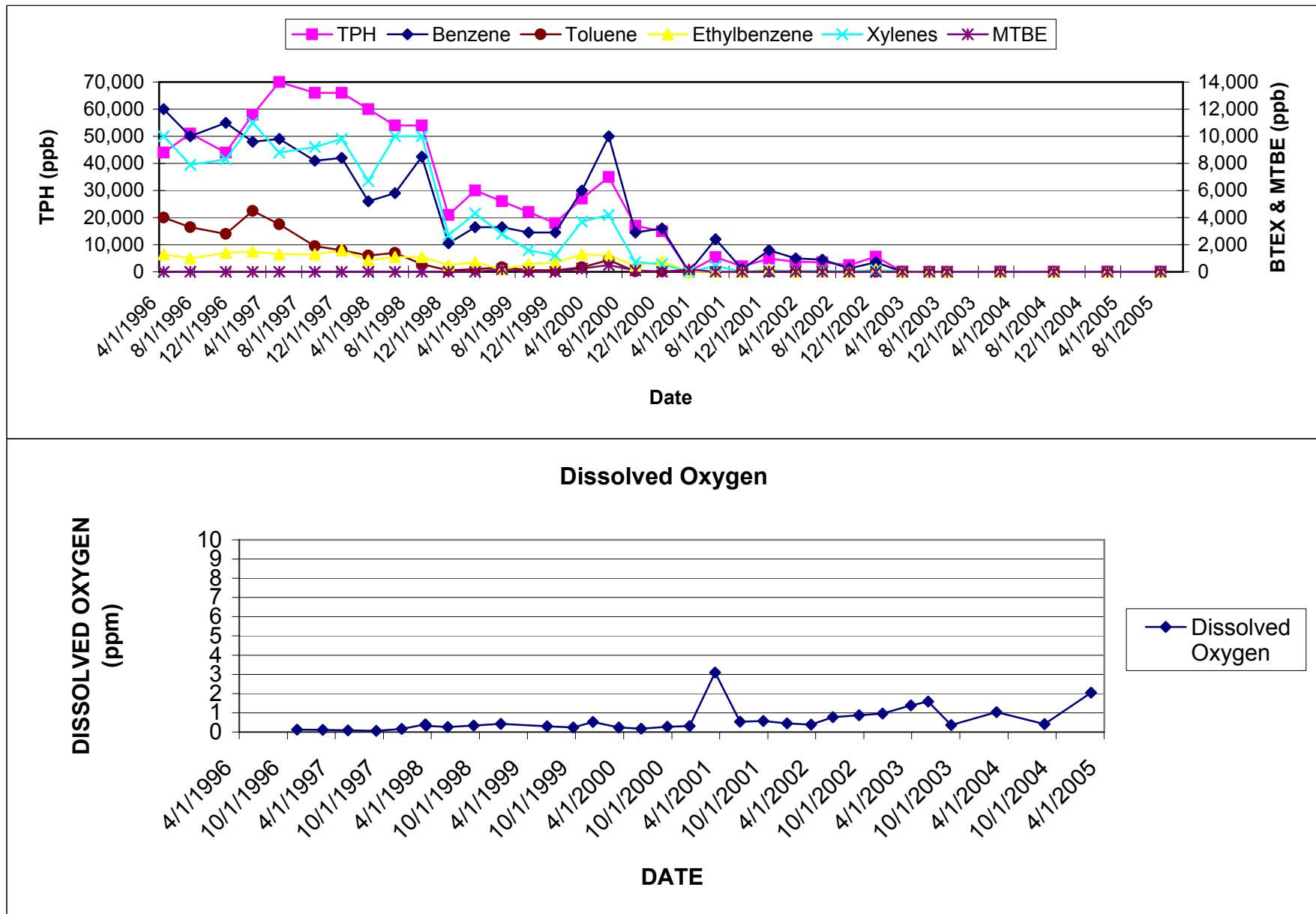
**MW-14**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



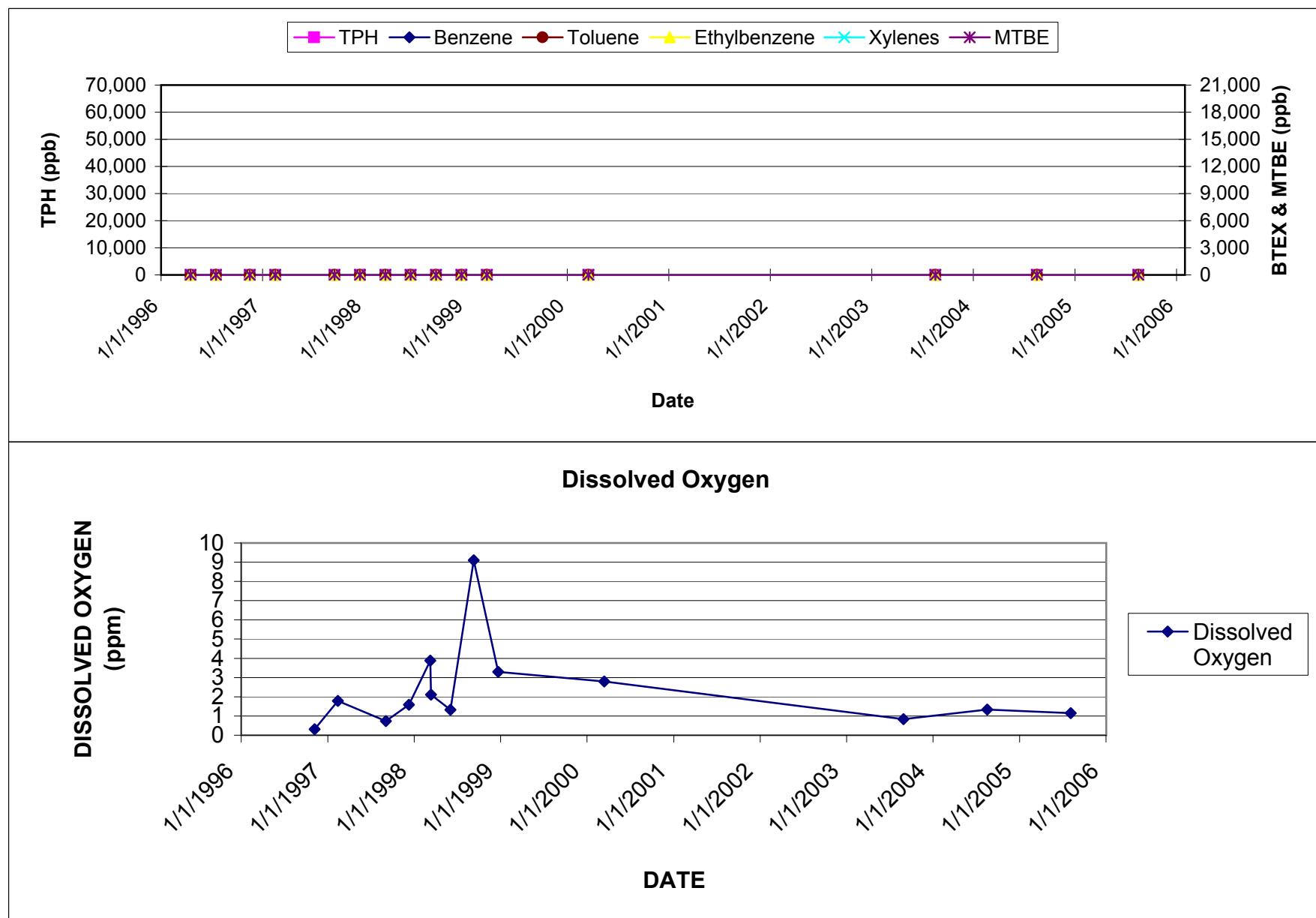
**MW-15**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



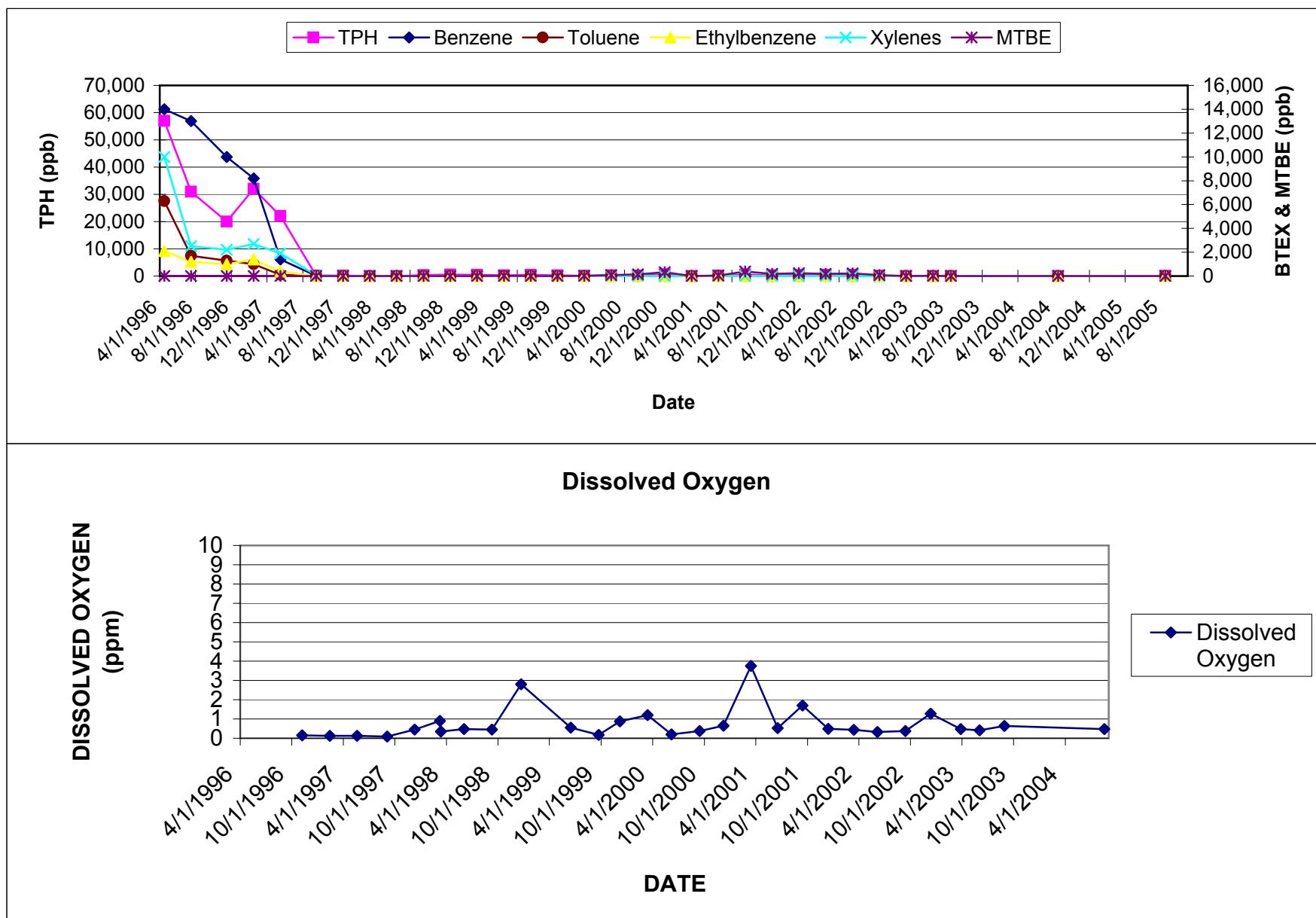
**MW-17**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



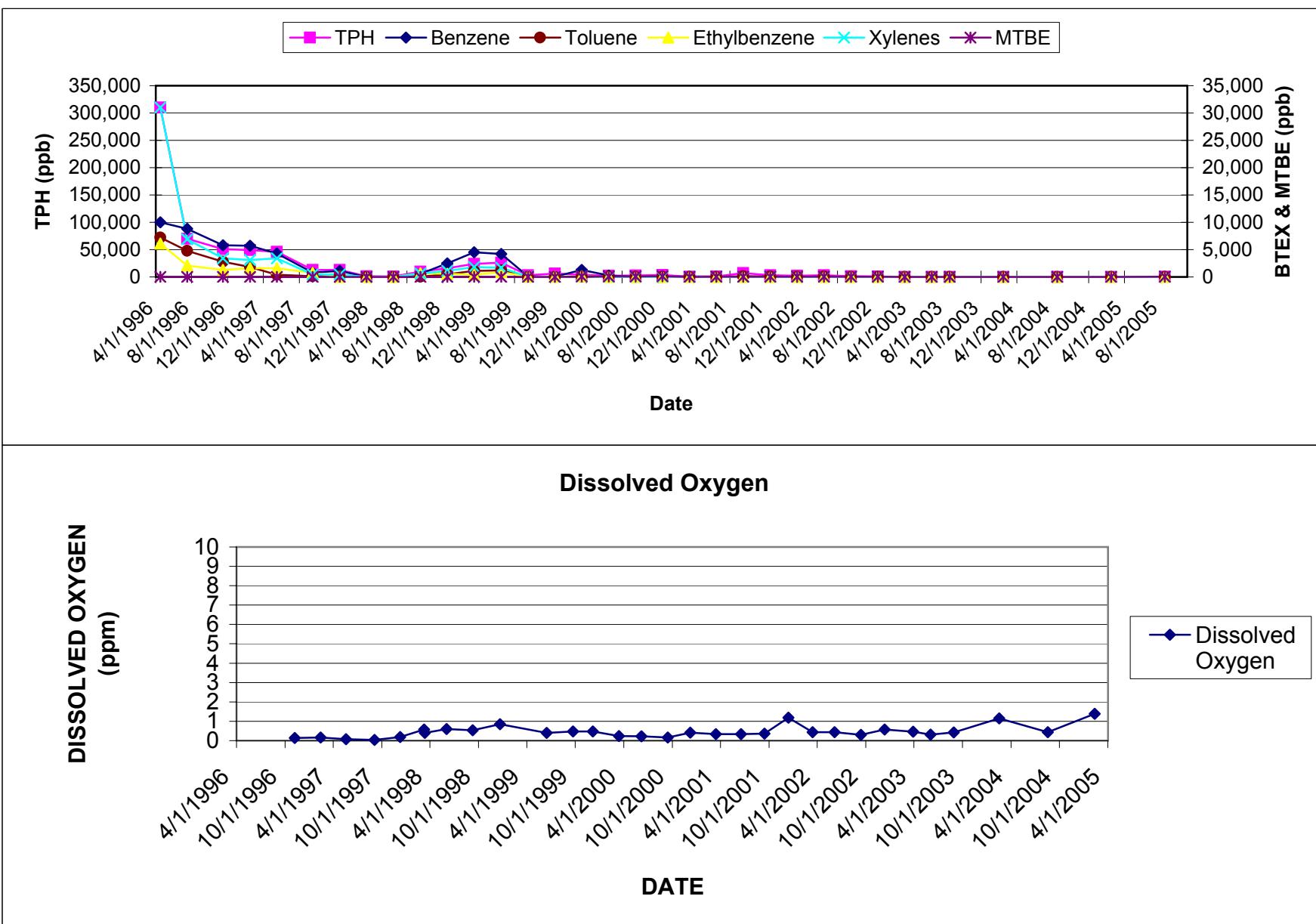
**MW-18**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



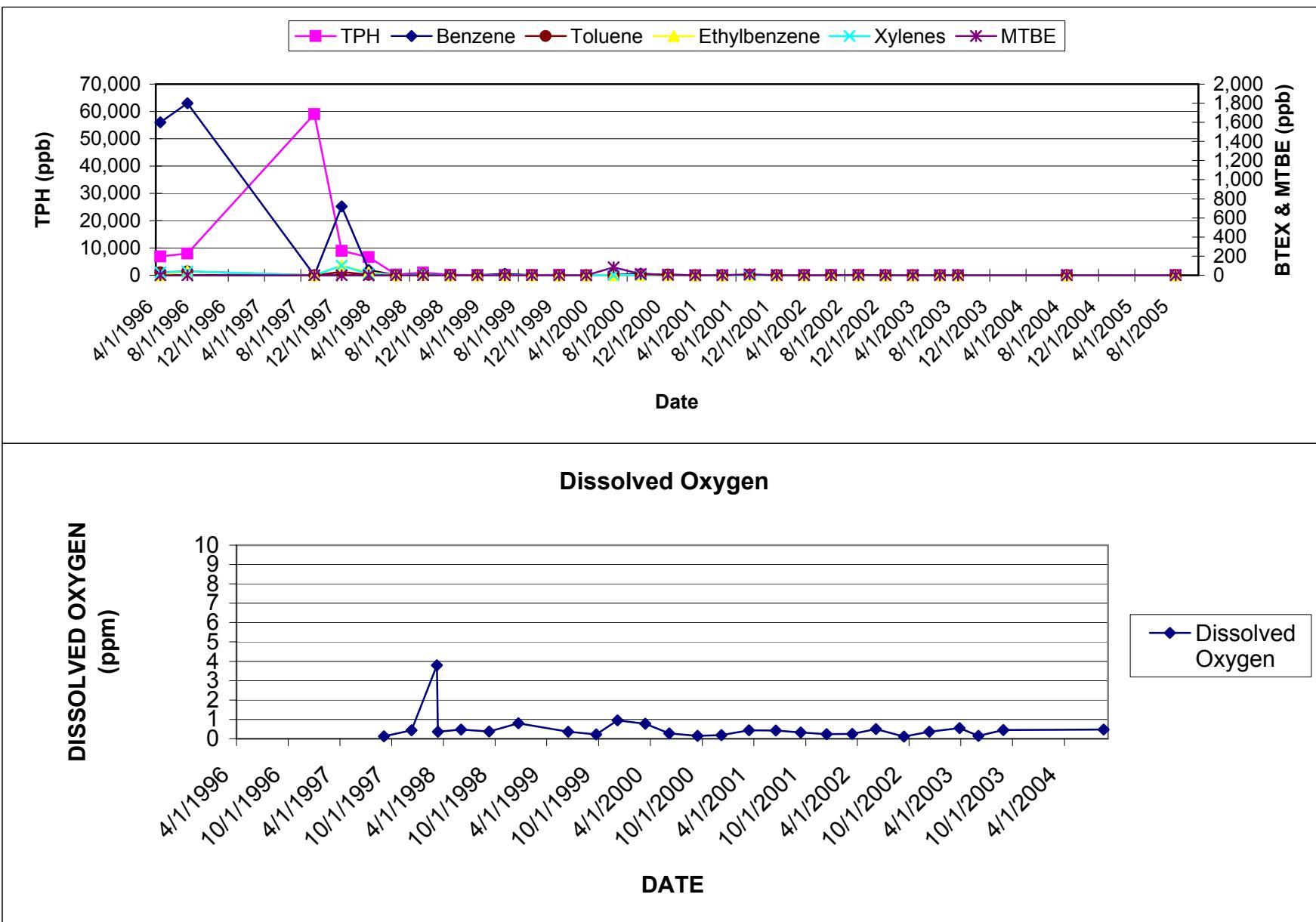
**MW-20**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



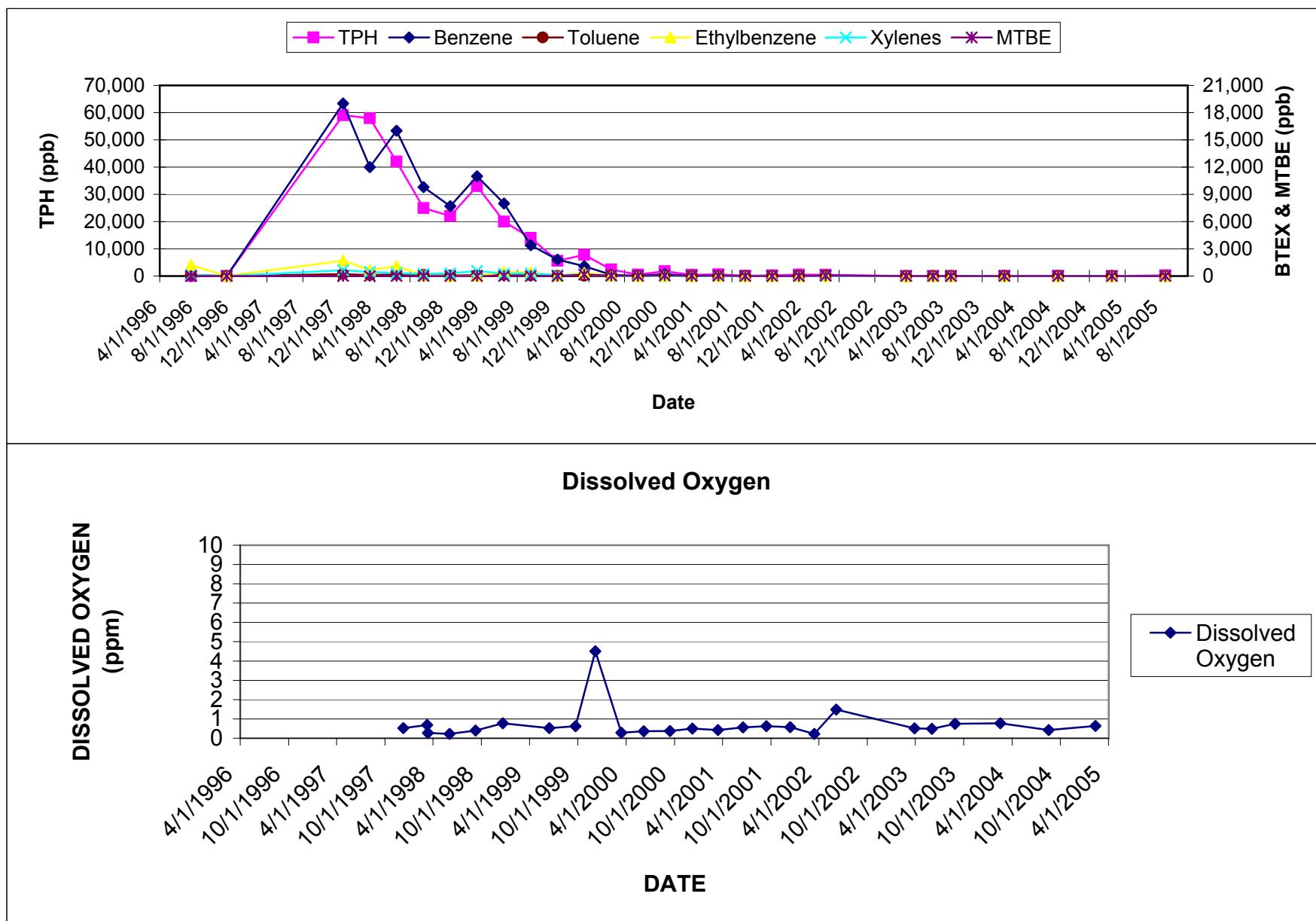
**MW-21**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



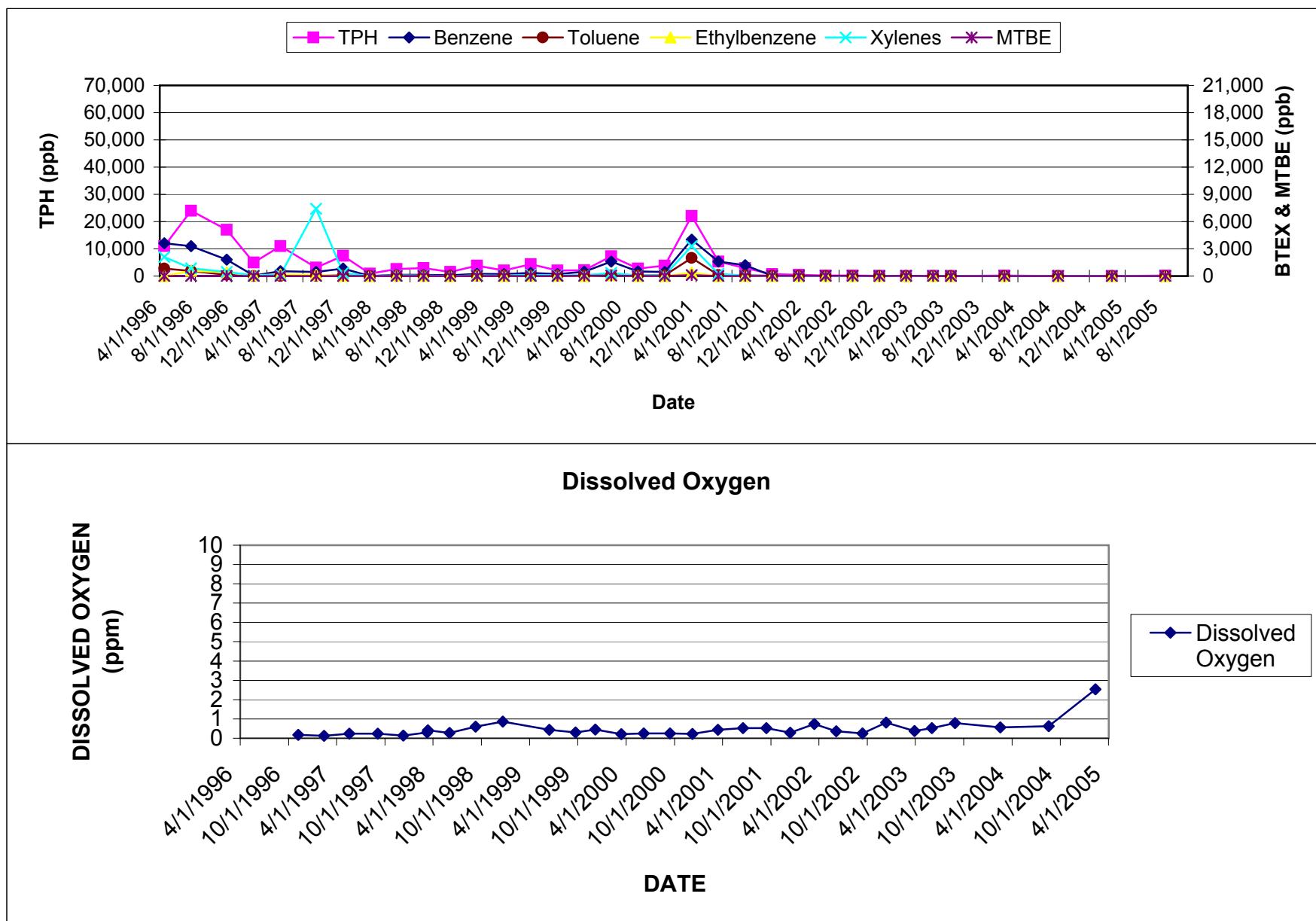
**MW-23**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



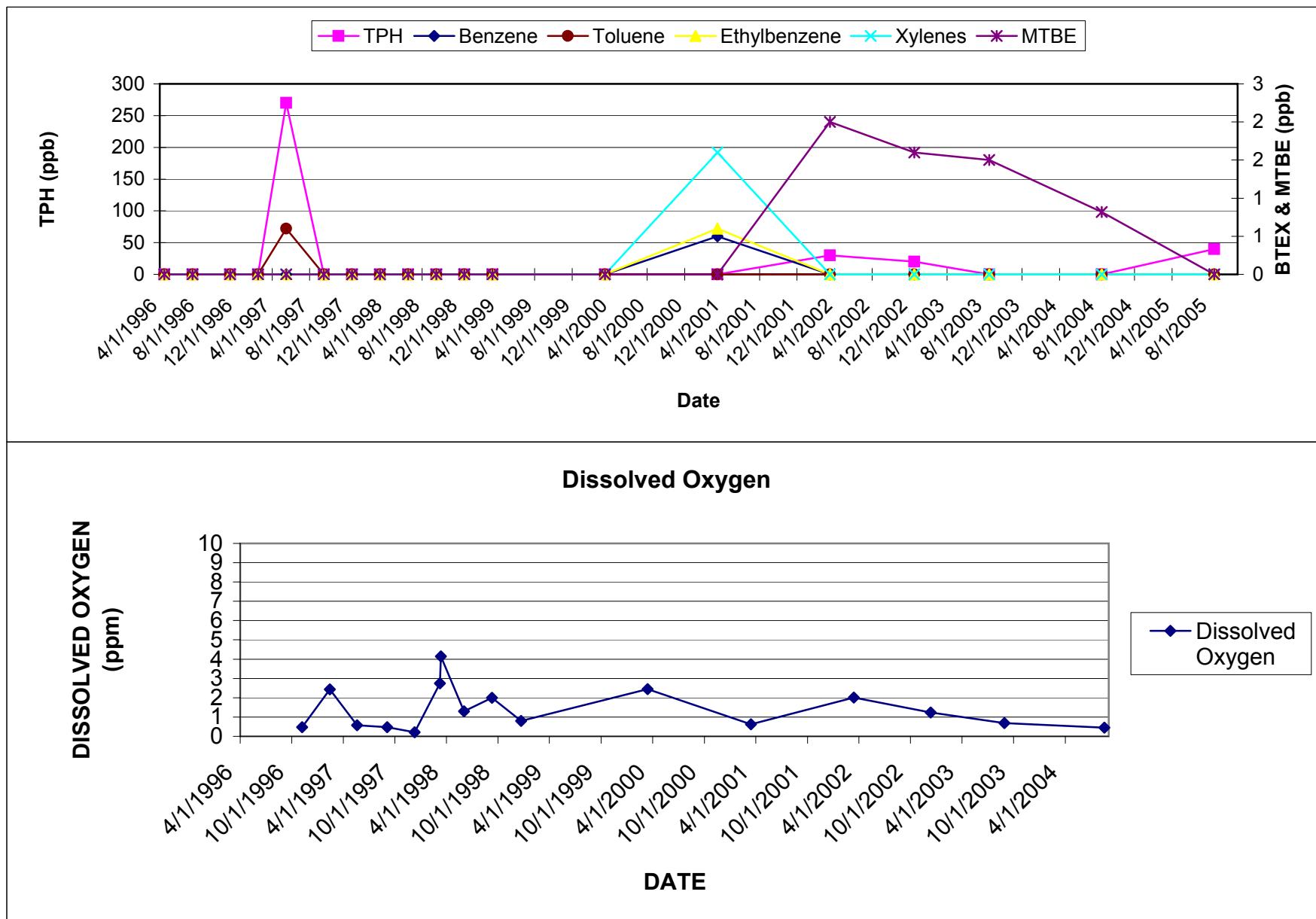
**MW-23X**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



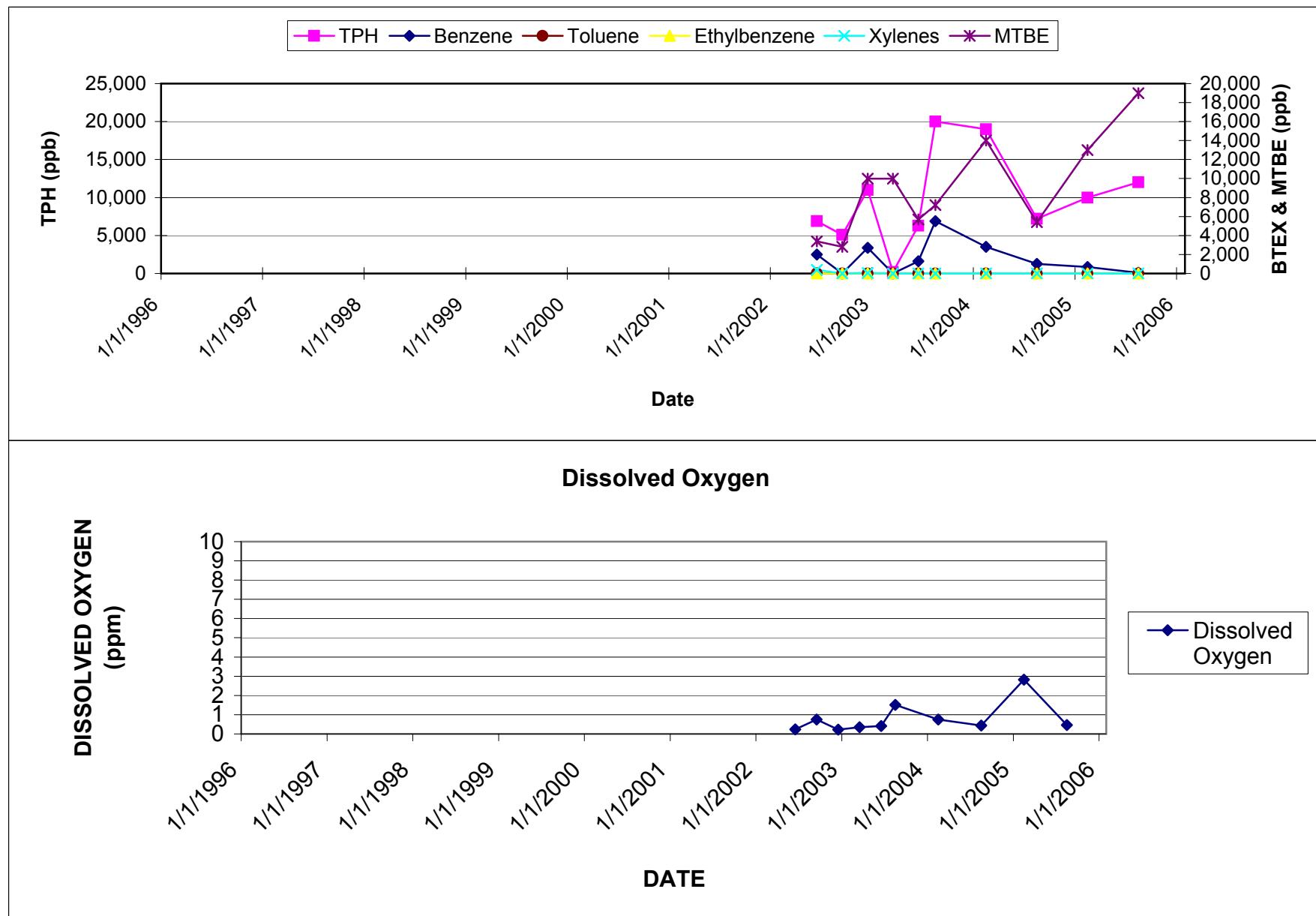
**MW-25**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



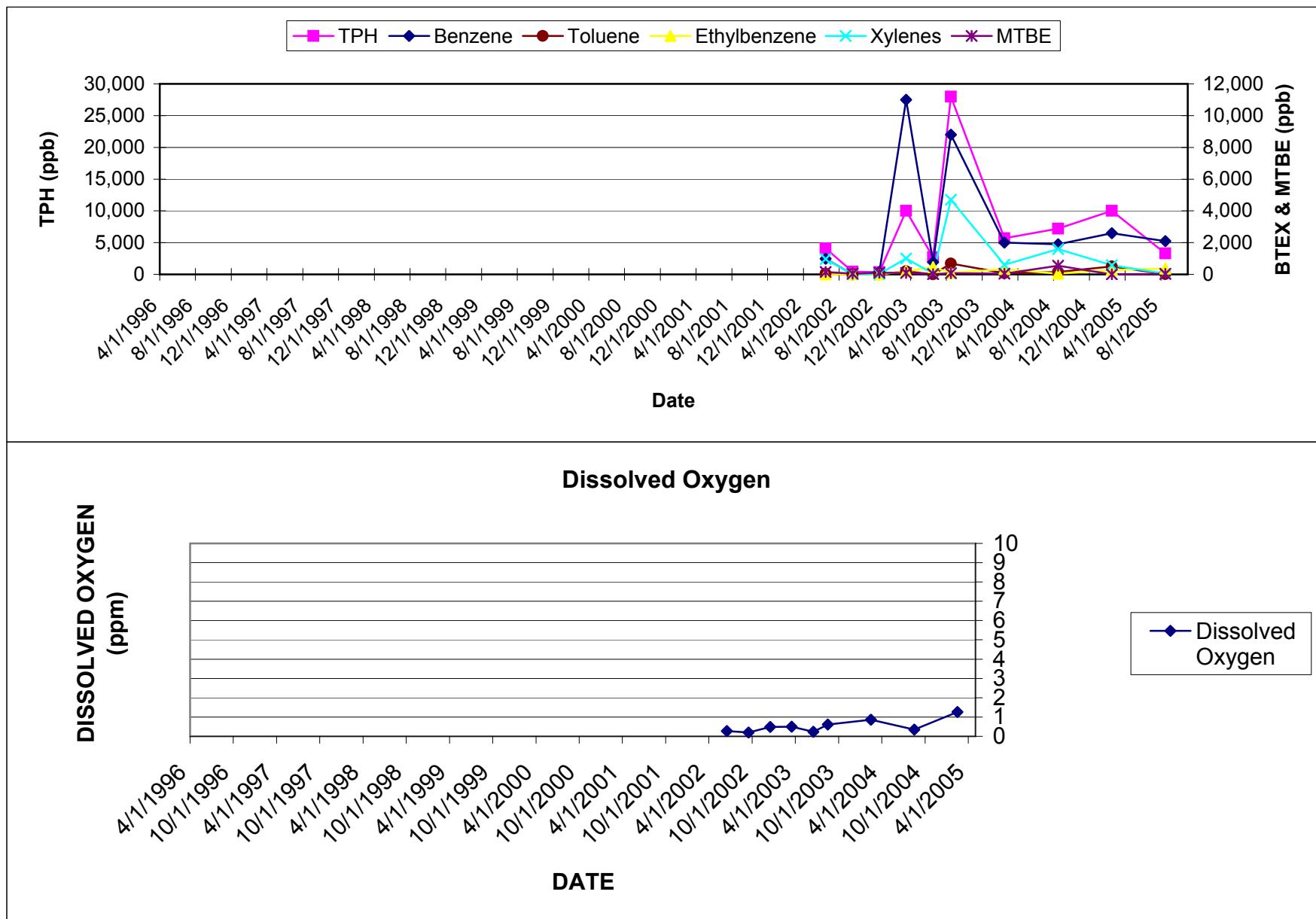
**MW-26**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



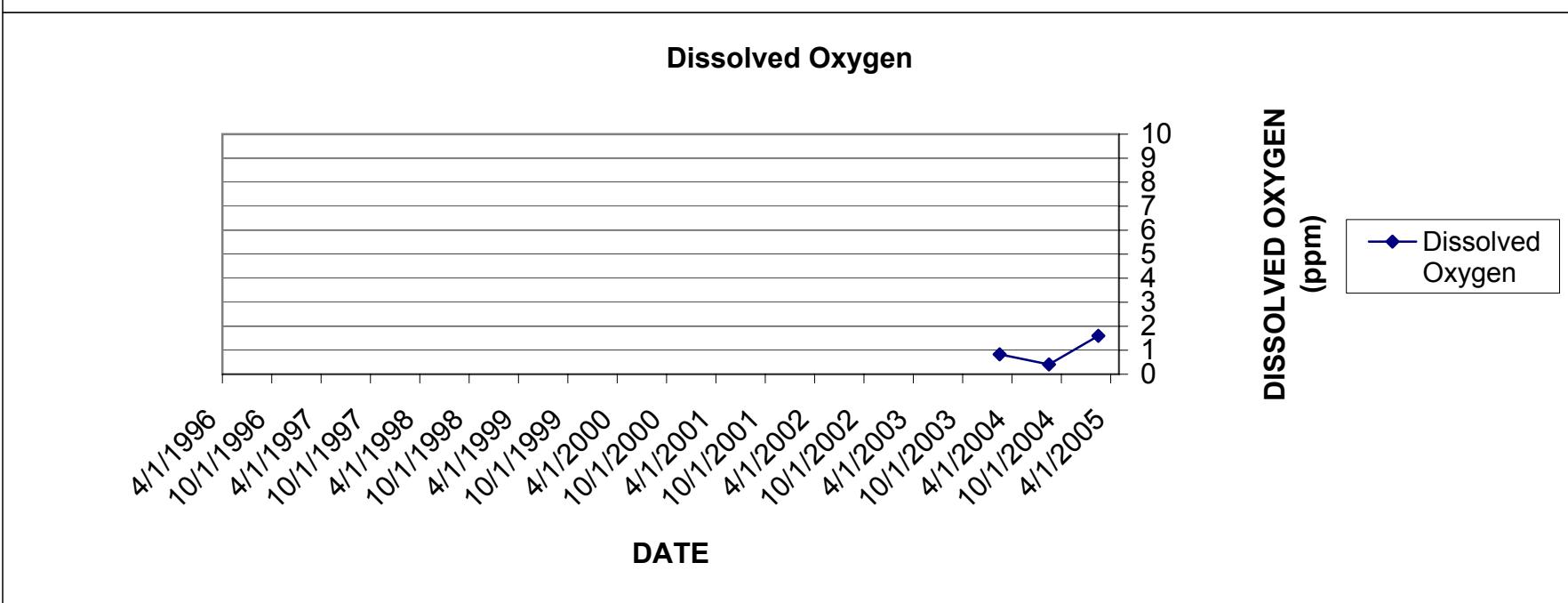
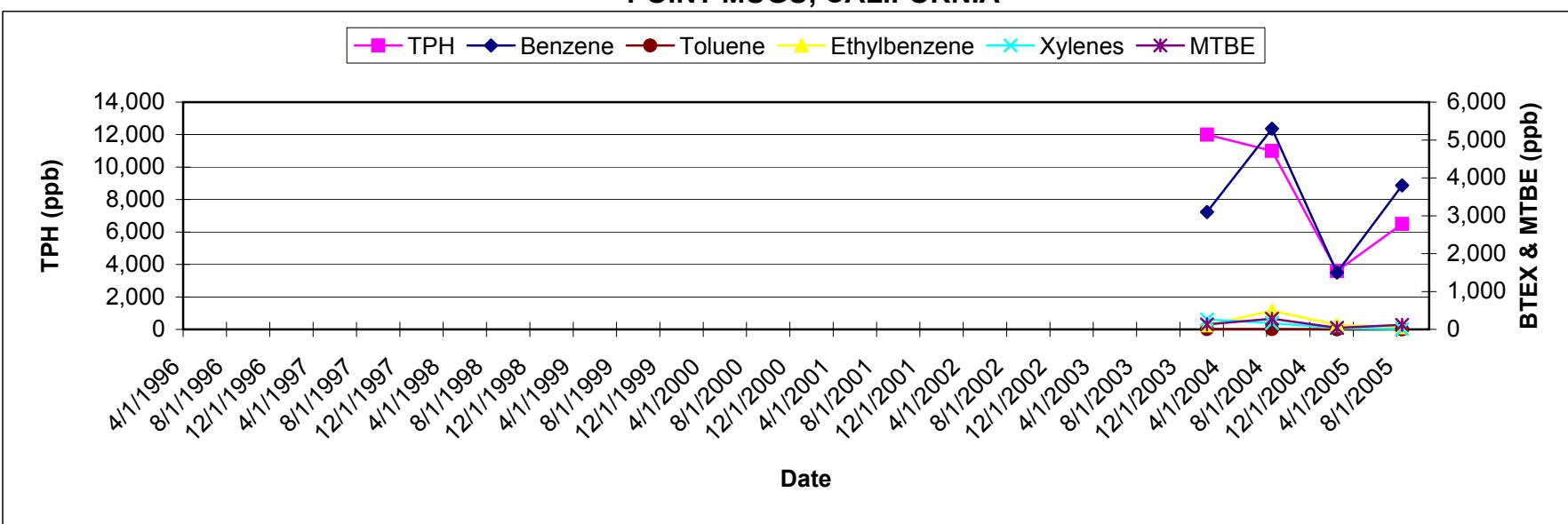
**MW-32**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



**MW-33**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



**MW-35**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**



**EW-43**  
**NAVAL AIR STATION**  
**POINT MUGU, CALIFORNIA**

